Attachment 4

OFFICER IN CHARGE OF CONSTRUCTION
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING
COMMAND DETACHMENT, FAR EAST

NAVFAC
SPECIFICATION
NO. 42-03-0115

Construction Contract No.
N62836-03-C-0115
WO No. BDKPT
PE: 421 M.K.

RENOVATE OFFICE, BLDG A40

for the

U.S. NAVAL SHIP REPAIR FACILITY,
YOKOSUKA, JAPAN

SPECIFICATION AND DRAWINGS PREPARED BY:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPARTMENT

PE/PDE: DATE 28/MAR/03	MECH: DATE 3/28/03
SPEC: DATE 28 MAR 03	ELECT: For C. DATE K. Kichikawa 3/28/03
ARCH: DATE 31 MAR 03	CIVIL: DATE 28 MAR '03
STRUCT: DATE	FIRE PROT: DATE
DSGN DIR: DATE 3/31/03	
SUBMITTED BY DATE 3/31/03	
FUNCTIONAL APPROVAL DATE 4/1/03	
APPROVED BY COMMANDER NAVFAC DATE / /	

ARCHITECT/ENGINEER'S SEAL

CONTENTS

DIVISION 1

GENERAL REQUIREMENTS

SECTION 01010

GENERAL PARAGRAPHS

PART 1 - GENERAL

1.1 GENERAL INTENTION: It is the declared and acknowledged intention and meaning to provide and secure “RENOVATE OFFICE, BLDG A40”, complete and ready for use.

1.2 GENERAL DESCRIPTION: The work includes office renovation and related works, as described on plans and specifications. Existing material known to contain asbestos will be encountered. The Contractor shall remove the asbestos containing material as specified in Section 13281, “Engineering Control of Asbestos Containing Materials”.

1.3 LOCATION: The work shall be located at the Fleet Activities, Yokosuka, Japan, approximately as shown. The exact location will be indicated by the Contracting Officer.

1.4 PROJECT SCHEDULE AND TIME CONSTRAINTS:

1.4.1 Option Contract: This project contains construction options(Option-1 and Option-2). These options may or may not be awarded. The material, labor, and equipment prices for the options shall not be included in the base bid and shall be listed separately on the bid sheet. The descriptions of work for the base bid and the options are as indicated on drawing. When the option or options are awarded, on-site work of Base Bid, Option-1, and Option-2 shall be performed in sequence.

1.4.2 Commencement and Completion of Work:

a. Base Bid: The Contractor shall be required to complete the entire work, ready for use, not later than 90 calendar days after the award, and shall complete all the on-site work within 60 calendar days.

b. Base Bid and Option-1: The Government has the right to award Option-1 within 60 calendar days after the Base Bid award. The

Contractor shall be required to complete the entire work, ready for use, not later than 135 calendar days after the Base Bid award. Prior to commence the on-site work of Option-1(except carpet floor work of Room 202), there shall be 15-calendar day interval for the Government relocation, when the Contractor shall not perform any on-site work. On-site work of Option-1 shall be completed within 30 calendar days, except carpet floor work of Room 202. Carpet floor work of Room 202 shall be performed during the Base Bid period.

c. Base Bid, Option-1, and Option-2: The Government has the right to award Option-2 within 120 calendar days after the Base Bid award. The Contractor shall be required to complete the entire work, ready for use, not later than 202 calendar days after the Base Bid award. Prior to commence the on-site work of Option-2, there shall be 7-calendar day interval for the Government relocation, when the Contractor shall not perform any on-site work. On-site work of Option-2 shall be completed within 60 calendar days.

1.4.3 Working Hours: The project site will be available when work is being performed on site and during regular working hours established by the Resident Officer in Charge of Construction(ROICC) between 8:00 a.m. and 4:45 p.m., Monday through Friday, excluding all U.S. legal holidays.

1.4.4 Work Outside Regular Hours: The Contracting Officer or authorized representative, may approve work outside regular hours. If the Contractor desires to carry on work outside regular hours, including Saturdays, Sundays, and Government holidays, submit a written justification giving the benefit to the Government, specific dates, hours, location, type of work to be performed, contract number and project title for approval, and submit request outside regular hours 96 hours in advance of the date the work will start. During periods of darkness, light the different parts of the work in an approved manner. All work outside of regular hours is subject to approval by the Contracting Officer. All work outside of regular hours shall be able to demonstrate a benefit to the Government.

1.5 GOVERNMENT REPRESENTATIVES:

a. The work will be under the general direction of an officer of the Civil Engineer Corps, United States Navy, or another officer or representative of the Government, designated in block 26 of Standard Form 1442. Except in connection with the Disputes Clause of this contract, this designated person has complete charge of and exercises full supervision over the work so far as it affects the interests of the Government.

b. For the purposes of the Disputes Clause, the "Contracting Officer" is the Commander, Naval Facilities Engineering Command, or his representatives warranted for this purpose. Any claim submitted under the Disputes Clause shall be submitted to the Contracting Officer in care of the person designated in block 26 of Standard Form 1442 as the representative of the Contracting Officer authorized to receive the claim.

c. The provisions of this paragraph or provisions elsewhere in this contract regarding supervision, approval, or direction by the Contracting Officer or the designated person shall not relieve the Contractor of responsibility for accomplishing the work, with regard to sufficiency or time of performance, except as otherwise provided.

1.6 ORAL MODIFICATION: No oral statement by any person other than the Contracting Officer or authorized representative, as provided in the Contract Clause entitled "Changes" will have authority to modify or otherwise affect the terms of this contract.

1.7 INSURANCE:

1.7.1 Minimum Requirements: The Contractor shall procure and maintain during the entire period of performance under this contract the following minimum insurance coverage:

Type of Insurance

a. Comprehensive General Liability: ¥50,000,000 per occurrence.

b. Automobile Liability: ¥20,000,000 per person, ¥50,000,000 per occurrence, ¥2,000,000 per occurrence for property damage.

c. Workers' Compensation: As required by Japanese workers' compensation and occupational disease statutes.

d. Other as required by Japanese law.

1.8 NO WAIVER BY THE GOVERNMENT: The failure of the Government in one or more instances to insist upon strict performance to terms of this contract or to exercise an option herein conferred shall not be construed as a waiver or relinquishment of the right to assert or rely upon such terms or option on a future occasion.

1.9 SUBMITTALS:

1.9.1 Administrative or Closeout Submittals: Submit all of the following submittals, except “As-built drawings” and “Request for Information(RFI)”, at one time.

a. Schedule of prices
b. As-built drawings
c. Subcontractors and personnel list
d. Vehicle list
e. Construction schedule
f. Request for information(RFI)

1.9.1.1 Schedule of Prices:

a. Data Required: Within 15 calendar days after the date of Award, the Contractor shall prepare and submit to the ROICC five(5) copies of the Schedule of Prices (construction contract) on the forms furnished for this purpose. The schedule of prices shall consist of a detailed breakdown of the contract price, giving the quantities for each of the various kinds of work; the unit prices; and the total prices therefore. The required schedule shall be based on the actual breakdown of the bid price. The format, content, and number of copies required will be prescribed by the ROICC and will be subject to his approval. The submission of the required data shall not otherwise affect the contract terms. Payments will not be made pursuant to the paragraph of the GENERAL PARAGRAPHS entitled “Payment to Contractor” until the Schedule of Prices has been submitted and approved.

b. Submittal Instructions: Furnish five(5) copies of the Schedule of Prices in accordance with the paragraph entitled “Data Required.” Payments will not be made pursuant to the paragraph entitled “Payments to the Contractor” until the schedule of prices has been approved.

1.9.1.2 As-built Drawings: Submit within 10 calendar days after completion of work, one(1) set of marked up as-built drawings and one(1) set of computer data(AutoCAD 2000) on CD-R to the ROICC. Maintain at the job site full-size contract drawings marked to show deviations which have been made from the contract drawings, including buried or concealed construction and utility features revealed during the course of construction. These drawings shall be available for review by the Contracting Officer.

1.9.1.3 Subcontractors and Personnel List: Within 15 calendar days after the date of Award, submit to the ROICC of the names, job titles, addresses, and telephone numbers of the key personnel of the Contractor and subcontractors for use in the event of an emergency.

As changes occur and additional information becomes available, correct and change the information contained in previous lists.

1.9.1.4 Vehicle List: Submit as required by the Contracting Officer.

1.9.1.5 Construction Schedule: Reference "FAR 52.236-15" for general requirements. Within 15 calendar days after the date of Award, the Contractor shall submit a detailed construction schedule by using CPM "critical path method" for acceptance prior to starting work. Interim schedules, not to exceed 15 calendar days may be accepted depending on the circumstances of the project. The schedule shall be in the form of a computer generated project chart(CPM) utilizing commercially available software specifically for project scheduling. The construction schedule shall include the following at a minimum:

a. Times projected for all salient, major features of work.
b. Times for critical submittals, approvals, and procurements of materials and equipment.
c. Times for testing and inspections.
d. Primary and secondary/alternate dates the Contractor intends to hold preparatory meetings for each definable feature work.

The project schedule shall be updated monthly or upon approval of significant modifications to the contract that impact existing work. All changes to the schedule must be approved prior to implementing.

1.9.1.6 Request for Information(RFI): When the Contractor has questions, submit with sample figure attached at the end of this section as Attachment-1.

1.10 PAYMENTS TO THE CONTRACTOR: In compliance with the Contract Clause entitled "Payments Under Fixed-Price Construction Contract," payments will be made upon submission of itemized requests by the Contractor and will be subject to reduction for overpayments or increase for underpayments on preceding payments to the Contractor.

1.10.1 Obligation of Government Payments: The obligation of the Government to make payments required under provisions of this contract shall, in the discretion of the ROICC, be subject to:

a. Reasonable deductions on account of defects in material or workmanship; and

b. Claims which the Government may have against the Contractor under or in connection with this contract.

1.11 CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT: Requests for payment in accordance with the terms of the contract shall consist of:

a. The Contractor's invoice on the form furnished for this purpose, which shall show, in summary form, the basis for arriving at the amount of the invoice.

b. The contract performance statement on the form which shows in detail the estimated cost percentage of completion. The Contracting Officer will prescribe the format, content, and number of copies required. The submission of the required data will not otherwise affect the contract terms.

c. Updated schedule with each invoice showing actual progress vs. original schedule.

1.12 EQUITABLE ADJUSTMENTS - WAIVER AND RELEASE OF CLAIMS:

a. Whenever the Contractor submits a claim for equitable adjustment under a clause of this contract which provides for equitable adjustment of the contract, the claim shall include all types of adjustments in the total amounts to which the clause entitles the Contractor, including, but not limited to, adjustments arising out of delays or disruptions or both caused by such change. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived: (1) adjustments to which the Contractor might otherwise be entitled under the clause where the claim fails to request adjustments; and (2) increase in the amount of equitable adjustments additional to those requested in the Contractor's claim.

b. The Contractor agrees that, if required by the ROICC, the Contractor shall execute a release, in form and substance satisfactory to the ROICC, as part of the supplemental agreement setting forth the aforesaid equitable adjustment. The Contractor further agrees that such release shall discharge the Government, including the Government's officers, agents, and employees, from further claims, including, but not limited to, further claims arising out of delays or disruptions caused by the aforesaid change.

1.13 ACTIVITY REGULATIONS: Obey activity regulations, including fire, traffic, safety, energy conservation, and security regulations. Personnel employed at the activity shall keep within the limits of the

work (and avenues of ingress and egress) and shall not enter any restricted areas unless required to do so and are cleared for such entry. Wear hard hats, with the Contractor's name prominently displayed, in designated hard hat areas. The Contractor's equipment shall be conspicuously marked for identification.

1.14 ORDER OF WORK: Schedule work so as to cause the least amount of interference with activity operations. Work schedules are subject to the approval of the ROICC.

1.15 EXISTING WORK: Prevent injury or damage to existing work which remains. Repair or replace as directed, in kind and in a manner to match existing adjoining work, the portions of existing work damaged or altered during construction. Work of this nature shall be performed by the Contractor at the Contractor's expense. At the completion of operations, existing work shall be in a condition equal to or better than that which existed before the new work started.

1.16 RESTRICTIONS ON OPERATIONS:

1.16.1 Coordination With Other Work: The Contract Clause entitled “Other Contracts”; the paragraph entitled “Order of Work”; and the following apply:

1.16.1.1 Occupied Building: 1st floor of Bldg A 40 is occupied. Do not enter 1st floor during the project work.

1.16.1.2 Protection for Occupied Office: When providing the new diffuser in existing office (in Option-1 area) on Base Bid construction, protect office interior, furniture and office equipment from the dust and debris at all times with protection covering.

1.16.2 Restrictions Upon Interrupting Utility Services:

1.16.2.1 Interruption to Cold Water Service under Base Bid Construction: Limit such interruption to cold water supply service to one time of four consecutive hours between 7 p.m. and 1 a.m..

1.16.2.2 Interruption to Steam Supply Service under Base Bid Construction: Limit such interruption to steam supply service to one time of four consecutive hours between 7 p.m. and 1 a.m..

1.16.2.3 Interruption to Cold Water Service under Opeion-1 Construction: Limit such interruption to cold water supply service to one time of four consecutive hours between 7 p.m. and 1 a.m..

1.16.2.4 Interruption to Air Conditioning Service: Do not interrupt air conditioning service. When performing the working at room 213 under Option-2 construction, provide temporary drain hose for existing A/C system.

1.16.2.5 Steam Heating Service (Cast Iron Radiator): Not restricted.

1.16.2.6 Interruption to Electric Service: Do not interrupt to electric service for more than four consecutive hours at once. Interruption to electric service shall be allowed once during this project. Outage period will be directed by the Contracting Officer. Interruption to electric service shall be performed between 8:00 a.m. and 4:45 p.m., from Monday through Friday. This limit includes time for deactivation and reactivation.

1.17 ACTIONS REQUIRED OF THE CONTRACTOR:

1.17.1 Activity Permits: Obtain pursuant to the paragraph of Section 01010, “General Paragraphs,” entitled “Activity Regulations.” Permits are required for, but are not necessarily limited to, welding, digging, and burning. Allow seven(7) calendar days for processing of the application.

1.18 SANITATION: Provide adequate sanitary conveniences of a type approved for the use of persons employed on the work, properly secluded from public observation, and maintained as directed. Upon completion of the work, remove the conveniences from the premises, leaving the premises clean and free from nuisance.

1.19 SPECIFICATIONS AND STANDARDS: The specifications and standards referenced in this project specification, including addenda, amendments, and errata listed, will govern in all cases where references thereto are made. In case of differences between these specifications or standards and this project specification or its accompanying drawings, this project specification and its accompanying drawings will govern to the extent of such differences. Otherwise, the referenced specifications and standards will apply. The requirement for packaging, packing, marking, and preparation for shipment or delivery included in the referenced specifications will apply only to materials and equipment that are furnished directly to the Government and not to materials and equipment that are to be furnished and installed by the Contractor.

1.20 OPTIONAL REQUIREMENTS: Where a choice of materials or methods, or both, is permitted in this contract, the Contractor will

be given the right to exercise the option unless otherwise required by the specification.

1.21 FACILITIES AND SERVICES:

1.21.1 Availability of Utilities Services: Pursuant to the Contract Clauses entitled “Availability and Use of Utilities Services,” reasonable amounts of the following utilities will be made available to the Contractor at no cost, except the utilities for the Contractor's temporary office and hut at the following rates:

Electricity:	$160.50 per 1,000 KWH
Potable Water:	$ 11.64 per 1,000 Gal

Rates shown were the latest available during the preparation of this specification, and are provided for informational purposes only. The point at which the Government will deliver such utilities or services and the quantity available is to be directed by the Contracting Officer. Pay costs incurred in connecting, disconnecting converting, and transferring the utilities to the work. The Contractor shall furnish backflow-preventing devices on connections to domestic water lines; meters; transformers; necessary accessories and perform necessary excavation/backfilling. The Contractor shall make connections and disconnections.

1.22 CONCILIATION CLAUSE:

a. Any disagreement arising under this contract which is not resolved by the parties to this contract may be submitted to the U.S.-Japan Joint Committee for Conciliation in accordance with paragraph 10, Article XVIII, of the Status of Forces Agreement under Article VI, of the Treaty of Mutual Cooperation and Security between Japan and the United States of America.

b. Recourse to the Joint Committee for Conciliation for resolving disputes is available in addition to the procedures set forth in the Contract Disputes Act of 1978 and the Disputes Clause of this contract, 52.233-1. A request for conciliation by the Joint Committee, however, shall not toll the time periods allowed under the Contract Disputes Act for appealing the Contracting Officer's final decision to either the Armed Services Board of Contract Appeals or U.S. Court of Federal Claims.

c. Upon filing a request for conciliation with the Joint Committee, the Contractor shall immediately notify the Contracting Officer in writing of the request.

1.23 WARRANTY:

1.23.1 Pre-Warranty Conference: Prior to contract completion and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this clause. Communication procedures for Contractor notification of warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be reviewed at this meeting.

1.23.2 Equipment Warranty Identification Tags:

1.23.2.1 The Contractor shall provide warranty identification tags on all Contractor furnished equipment which he has installed.

a. The tags shall be similar in format and size to the exhibits provided by this specification, they shall be suitable for interior and exterior locations, resistant to solvents, abrasion, and to fading caused by sunlight, precipitation, etc. These tags shall have a permanent pressure-sensitive adhesive back, and they shall be installed in a position that is easily (or most easily) noticeable. Contractor furnished equipment that has differing warranties on its components will have each component tagged.

b. Sample tags shall be submitted for Government review and approval. These tags shall be filled out representative of how the Contractor will complete all other tags.

c. Tags for Warrantied Equipment: The tag for this equipment shall be similar to the following. Exact format and size will be as approved.

EQUIPMENT WARRANTY
CONTRACTOR FURNISHED EQUIPMENT

MFG MODEL NO.
SERIAL NO.
CONTRACT NO.
CONTRACTOR NAME
CONTRACTOR WARRANTY EXPIRES
MFG WARRANTY(IES) EXPIRE

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d. If the manufacturer's name (MFG), model number and serial number are on the manufacturer's equipment data plate and this data plate is easily found and fully legible, this information need not be duplicated on the equipment warranty tag. The Contractor warranty expires (warranty expiration date) and the final manufacturer's warranty expiration date will be determined as specified in the contract.

1.23.2.2 Execution. The Contractor will complete the required information on each tag and install these tags on the equipment by the time of and as a condition of final acceptance of the equipment.

1.23.2.3 Equipment Warranty Tag Replacement. As stated in Contract Clause: WARRANTY OF CONSTRUCTION, the Contractor's warranty with respect to work repaired or replaced shall run for one year from the date of repair or replacement. Such activity shall include an updated warranty identification tag on the repaired or replaced equipment. The tag shall be furnished and installed by the Contractor, and shall be identical to the original tag, except that the Contractor's warranty expiration date will be one year from the date of acceptance of the repair or replacement.

1.24 INTERPRETER: The Contractor shall furnish the service of an interpreter on the job. This interpreter shall have strong knowledge of the English language in terms of writing, listening, speaking and reading skills. Interpreter's English skills shall also be well suited to the construction industry. If at any time the Contracting Officer feels the Contractor's interpreter is unable to perform the duties required of him/her, the Contracting Officer will ask for his immediate replacement. When the QC manager or the project superintendent talks with the Government representative, on-site or off-site, they shall be accompanied by their interpreter.

PART 2 - EXECUTION

2.1 CONTRACTOR'S FACILITY: If there is adequate land area available, and on the basis of non-interference in the requirements of the Government, the Contractor may be permitted to erect a structure of reasonable size at or near the site of the work or at the other location on base as directed by the Contracting Officer. The Government is under no obligation to provide such land, but the Contracting Officer will accept a written request for temporary assignment of an area for such use. If approved, the Contractor may proceed, providing that it is clearly understood that the Government

will bear no responsibility for the safety and security of the structure or its contents (including equipment, material or any other things of whatever nature). If the Contractor erects a structure on Government controlled land in accordance with the foregoing, it shall at all times be kept in a neat, clean, orderly condition in order to improve safety and reduce fire hazards. The disposal of trash and debris shall be the Contractor's responsibility. Electric power, water, and telephone may be installed in the structure, subject to approval of the Government, on payment by the Contractor of the established charges unless otherwise specified. Within 15 calendar days after completion of this project, the Contractor shall remove the temporary facilities for this project to restore the land to the original condition.

PART 3 - TECHNICAL

3.1 PROJECT INFORMATION:

3.1.1 Contract Drawings and Specification: As specified in Contract Clause, DFARS 252.236-7001.

a. Index of Contract Drawings:

NAVFAC DRAWING NO.	TITLE
7838278	General Description of Work
7838279	Finish Schedules
7838280	Removal Plans
7838281	Floor Plan
7838282	Floor Plan
7838283	Ceiling
7838284	Plan Detail & Framing Floor Plan
7838285	Sections
7838286	Sections No.2
7838287	Key Plan and Door & Window Schedules
7838288	Roof Plan and Details
7838289	Details
7838290	General Description of Work and Existing Plan
7838291	Existing Plan and Elevation
7838292	Equipment Schedule
7838293	2nd Floor A/C Plan
7838294	2nd Floor Ventilation System and Drain Piping Plan
7838295	Plan and Elevation
7838296	Partial Plans

7838297	Details (1)
7838298	Details (2)
7838299	Details (3)
7838300	Scope, Main Distribution Plan
7838301	Scope, Main Distribution Plan
7838302	Exist and Removal Lighting Plan
7838303	New Lighting Plan
7838304	Exst and Removal Receptacle Plan
7838305	New Receptacle Plan
7838306	New A/C Wiring Plan
7838307	New A/C Wiring Plan
7838308	Exst Communication Plan
7838309	New Communication Plan 2nd Floor
7838310	Fire Alarm System Plan
7838311	Fire Alarm System/Exit Light Plan
7838312	Power Branch, LAN, TV System and Telephone Diagram
7838313	Panelboard Schedule (1)
7838314	Panelboard Schedule (2)
7838315	Panelboard Schedule (3)
7838316	Panelboard Schedule (4)
7838317	Lighting Fixtures and Details
7838318	Disconnecting Switch, Receptacle and Details
7838319	Plan, Profile and Details of Sewer Line

*** END OF SECTION ***

CONTRACT NUMBER N - - -	REQUEST FOR INFORMATION	RFI NUMBER

CONTRACT TITLE:

PRIME CONTRACTOR:

SUBCONTRACTOR/SUPPLIER:

TITLE OF RFI:

CONTRACT DOCUMENTS AFFECTED BY THIS RFI (DRAWINGS, DETAILS, SPECS, ETC):

COST EFFECT: RESPONSE REQUESTED BY:

INFORMATION REQUESTED:

_____	_____	_____	_____
DATE	SUBCONTRACTOR/SUPPLIER	DATE	PRIME CONTRACTOR

ANSWER PROVIDED BY ROICC:

_____	_____	_____	_____
DATE	CONREP SIGNATURE	DATE	AROICC/AREICC SIGNATURE

THE RFI SYSTEM IS INTENDED TO PROVIDE AN EFFICIENT AND FORMAL MECHANISM FOR RESPONDING TO CONTRACTOR'S REQUESTS FOR INFORMATION. IT IS NOT AN AUTHORITY TO PROCEED WITH ADDITIONAL WORK. IF YOU CONSIDER THE RFI RESPONSE A CHANGED CONDITION, WRITTEN NOTICE TO THE ROICC IS REQUIRED IN ACCORDANCE WITH CONTRACT PROVISIONS.

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 DEFINITIONS:

1.1.1 Submittal Shop drawings, product data, samples, and administrative submittals presented for review and approval. Contract Clauses "FAR 52.236-5, Material and Workmanship," paragraph (b) and "FAR 52.236-21, Specifications and Drawings for Construction," paragraphs (d), (e), and (f) apply to all "submittals." Every submittal shall be written in English and Japanese. Unless otherwise specified, submit to the Contracting Officer within 15 calendar days after the date of award.

1.1.2 Types of Submittals: All submittals are classified as indicated in the paragraph “Schedule of Submittal Descriptions.” The submittals also are grouped as follows:

a. Shop drawings: As used in this section, drawings, schedules, diagrams, and other data prepared specifically for this Contract, by the Contractor or through the Contractor by way of a subcontractor, manufacturer, supplier, distributor, or other lower tier contractor, to illustrate a portion of the work.

b. Product data: Preprinted material such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate a portion of the work, but not prepared exclusively for this Contract.

c. Samples: Physical examples of products, materials, equipment, assemblies, or workmanship that are physically identical to a portion of the work, illustrating a portion of the work or establishing standards for evaluating the appearance of the finished work or both.

d. Administrative Submittals: Data presented for reviews and approval to ensure that the administrative requirements of the project are adequately met but not to ensure directly that the work is in accordance with the design concept and in compliance with the Contract documents.

1.1.3 Approving Authority: The person authorized to approve a submittal.

1.1.4 Work: As used in this section, on- and off-site construction required by the Contract documents, including labor necessary to produce the construction and materials, products, equipment, and systems incorporated or to be incorporated in such construction.

1.2 SUBMITTALS: Submit the following in accordance with the requirements of this section.

1.2.1 SD-18, Records:

a. Submittal register:

1.2.1.1 Submittal Register: State for each submittal the Contractor's planned submittal date. Insert dates on copies of the "Submittal Register." "Submittal Register" form is provided as ATTACHMENT-3 through ATTACHMENT-9.

1.2.1.2 Submittal Register Preparation: Prepare and maintain a submittal register. Instructions are included in paragraph titled "SUBMITTAL REGISTER INSTRUCTIONS" for use in developing the submittal register. The submittal register with columns (a), (b), (c), (d) completed, is designated the initial submittal register required as a part of the quality control plan. The remaining columns on the submittal register forms shall be completed by the Contractor. Additional details concerning the use of the submittal register will be explained at the preconstruction conference.

1.2.1.3 Submittal of Submittal Register: The Contractor shall submit his submittal register, for approval, prior to submission of other submittals or along with their initial submittal submission. And the Contractor's copy of the completed submittal register shall be submitted to the ROICC at the completion of the project as an administrative closeout submittal.

1.3 PROCEDURES FOR SUBMITTALS:

1.3.1 Reviewing, Certifying, Approving Authority: The QC organization shall be responsible for reviewing and certifying that submittals are in compliance with contract requirements. The approving authority on submittals is the QC Manager unless otherwise specified for the specific submittal.

1.3.2 Constraints:

a. Submittals listed or specified in this Contract shall conform to the provisions of this section, unless explicitly stated otherwise.

b. Submittals shall be complete for each definable feature of work; components of the definable feature interrelated as a system shall be submitted at the same time.

c. When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, the submittal will be returned without review.

d. Approval of a separate material, product, or component does not imply approval of assembly in which the item functions.

1.3.3 Scheduling:

a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of the work so that work will not be delayed by submittal processing. Allow for potential requirements to resubmit.

b. Except as specified otherwise, allow a review period, beginning with receipt by the approving authority, of 15 calendar days for submittals for QC Manager approval and 15 calendar days for submittals for Contracting Officer approval. The period of review for submittals with Contracting Officer approval begins when the Government receives the submittal from the QC organization. The period of review for each resubmittal is the same as for the initial submittal.

c. For submittals requiring review by the Fire Protection Engineer, allow a review period, beginning when the Government receives the submittal from the QC organization, of 20 working days for return of the submittal to the Contractor. The period of review for each resubmittal is the same as for the initial submittal.

1.3.4 Variations: Variations from contract requirements require Government approval pursuant to Contract Clause entitled "FAR 52.236-21, Specifications and Drawings for Construction" and will be considered where advantageous to the Government. When proposing a variation, submit a written request to the Contracting Officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to the Government. If lower cost is a benefit, also include an estimate of the cost saving. Identify the proposed variation separately and include the documentation for the proposed variation along with the required submittal for the item. When submitting a variation for approval, the Contractor certifies the following:

1.3.4.1 Variation Is Compatible: The Contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of the work.

1.3.4.2 Review Schedule Is Modified: In addition to the normal submittal review period, a period of 15 working days will be allowed for consideration by the Government of submittals with variations.

1.3.5 Contractor's Responsibilities

a. Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and Contract documents.

b. Transmit submittals to the QC organization in orderly sequence, in accordance with the Submittal Register, and to prevent delays in the work, delays to the Government, or delays to separate contractors.

c. Advise the Contracting Officer of variation, as required by the paragraph entitled "Variations."

d. Correct and resubmit submittal as directed by the approving authority. When resubmitting disapproved transmittals or transmittals noted for resubmittal, the Contractor shall provide a copy of that previously submitted transmittal including all reviewer comments for use by the approving authority.

e. Direct specific attention, in writing or on resubmitted submittal, to revisions not requested by the approving authority on previous submissions.

f. Furnish additional copies of submittals when requested by the Contracting Officer, to a limit of 20 copies per submittals.

g. Complete work which must be accomplished as a basis of a submittal in time to allow the submittal to occur as scheduled.

h. Ensure no work has begun until submittals for that work have been returned as “approved”, or “approved as noted”.

1.3.6 QC Organization Responsibilities:

a. Note the date on which the submittal was received from the contractor on each submittal.

b. Review each submittal; and check and coordinate each submittal with requirements of the work and Contract documents.

c. Review submittals for conformance with project design concepts and compliance with the Contract documents.

d. Act on submittals, determining the appropriate action based on the QC organization's review of the submittal.

(1) When the QC Manager is the approving authority, take the appropriate action on the submittal from the possible actions defined in the paragraph entitled, "Actions Possible."

(2) When the Contracting Officer is the approving authority or when a variation has been proposed, forward the submittal to the Government with the certifying statement or return the submittal marked "not reviewed" or "revise and resubmit" as appropriate. The QC organization's review of the submittal determines the appropriate action.

e. Ensure that material is clearly legible.

f. Stamp each transmittal sheet of each submittal with the QC certifying statement or approving statement, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.

(1) When the approving authority is the Contracting Officer, the QC organization will certify submittals forwarded to the Contracting Officer with the following certifying statement:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated with Contract Number N62836-03-C-0115, is in compliance with the Contract drawings and specification, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Certified by QC Manager _____, Date _____"
(Signature)

(2) When the approving authority is the QC Manager, the QC manager will use the following approval statement when returning submittals to the Contractor as "Approved" or "Approved as Noted."

"I hereby certify that the (material) (equipment) (article) shown and marked in this submittal and proposed to be incorporated with Contract Number N62836-03-C-0115, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is _____ approved for use.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Approved by QC Manager _____, Date _____"
(Signature)

g. Sign the certifying statement or approval statement. The person signing the certifying statements shall be the QC organization member designated in the approved QC plan. The signatures shall be in original ink with stamp. Stamped signatures are not acceptable.

h. Update the submittal register as submittal actions occur and maintain the submittal register at the project site until final acceptance of all work by the Contracting Officer.

i. Retain a copy of approved submittals at the project site, including the Contractor's copy of approved samples.

1.3.7 Government's Responsibilities: When the approving authority is the Contracting Officer, the Government will:

a. Note the date on which the submittal was received from the QC Manager, and on each submittal for which the Contracting Officer is the approving authority. The Contractor shall date stamp with time.

b. Review submittals for approval within the scheduling period specified and only for conformance with project design concepts and compliance with the Contract documents.

c. Identify returned submittals with one of the actions defined in the paragraph entitled "Actions Possible" and with markings appropriate for the action indicated.

1.3.8 Actions Possible: Submittals will be returned with one of the following notations:

a. Approved as submitted.

b. Approved except as noted on drawings. Resubmission not required.

c. Approved except as noted on drawings. Refer to attached sheet. Resubmission required.

d. Will be returned by separate correspondence.

e. Disapproved. See attached sheet.

1.4 FORMAT OF SUBMITTALS:

1.4.1 Transmittal Form: Transmit each submittal, except sample installations and sample panels, to the office of the approving authority. Transmit submittals with a transmittal form (ATTACHMENT-1 and -2) prescribed by the Contracting Officer and standard for the project. The transmittal form shall identify the Contractor, indicate the date of the submittal, and include information prescribed by the transmittal form and required in the paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding sample panels and sample installations.

1.4.2 Identifying Submittals: Identify submittals, except sample panel and sample installation, with the following information permanently adhered to or noted on each separate component of each submittal and noted on the transmittal form. Mark each copy of each submittal identically, with the following:

a. Project title and location.

b. Construction Contract number.

c. The section number of the specification section by which the submittal is required.

d. The submittal description (SD) number of each component of the submittal.

e. When a resubmission, an alphabetic suffix on the submittal description, for example, SD-10A, to indicate the resubmission.

f. The name, address, and telephone number of the subcontractor, supplier, manufacturer and any other second tier contractor associated with the submittal.

g. Product identification and location in project.

1.4.3 Format for Product Data:

a. Present product data submittals for each section as a complete, bound volume. Include a table of contents listing page and catalog item numbers for product data.

b. Indicate, by prominent notation, each product which is being submitted; indicate the contract specification section number and paragraph number to which it pertains.

c. Supplement product data with material prepared for the project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for the project.

1.4.4 Format for Shop Drawings:

a. Shop drawings shall not be less than A4 (297 x 210 mm) (8 1/2 by 11 inches) nor more than AO (1189 x 841 mm) (30 x 42 inches).

b. Present A4 (297 x 210 mm) (8 1/2 x 11 inches) sized shop drawings as a part of the bound volume for the submittals required by the section. Present larger drawings in sets.

c. Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to the information required in the paragraph entitled "Identifying Submittals."

d. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Identify materials and products for work shown.

1.4.5 Format of Samples:

a. Furnish samples in the sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately the same size as specified:

(1) Sample of Equipment or Device: Full size.

(2) Sample of Materials Less Than 50 by 75 mm (2 by 3 inches): Built up to A4 (297 x 210 mm) (8 1/2 by 11 inches).

(3) Sample of Materials Exceeding A4 (297 x 210 mm) (8 1/2 by 11 inches): Cut down to A4 (297 x 210 mm) (8 1/2 by 11 inches) and adequate to indicate color, texture, and material variations.

(4) Sample of Linear Devices or Materials: 250 mm (10 inch) length or length to be supplied, if less than 250 mm (10 inches). Examples of linear devices or materials are conduit and handrails.

(5) Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.

(6) Color Selection Samples: 50 by 100 mm (2 inches by 4 inches).

(7) Sample Panel: 1200 by 1200 mm (4 by 4 feet).

(8) Sample Installation: 10 square meters (100 square feet).

b. Samples Showing Range of Variation: Where variations are unavoidable due to the nature of the materials, submit sets of samples of not less than three units showing the extremes and middle of the range.

c. Reusable Samples: Incorporate returned samples into the work only if so specified or indicated. Incorporated samples shall be in undamaged condition at the time of use.

d. Recording of Sample Installation: Note and preserve the notation of the area constituting the sample installation but remove the notation at the final clean up of the project.

1.4.6 Format of Administrative Submittals:

a. When the submittal includes a document which is to be used in the project or become a part of the project record, other than as a submittal, do not apply the Contractor's approval stamp to the document, but to a separate sheet accompanying the document.

b. Operation and Maintenance Manual Data: Submit as required for each item of equipment and system. Submit three copies, bound in hardback binders. Submit the manuals to the Contracting Officer for approval within 30 days after delivery of an item to the contract site. Inscribe the following identification on the cover: "OPERATION AND MAINTENANCE MANUAL"; the name and location of the system, equipment, and building; name of Contractor; and contract number. Include in the manual the names, addresses, and telephone numbers of each subcontractor installing the system or equipment and the local representatives for each system and each item of equipment. Include a table of contents and assemble the manual to conform to the table of contents, with the tab sheets placed before instructions covering the subject. The instructions shall be legible and drawings on sheets that

are larger than the manual sheets shall be folded in. Operation and Maintenance Manual shall be written in English and Japanese. The manual shall include the following:

(1) Internal and interconnecting wiring and control diagrams with data to explain detailed operation and control of the system or equipment.

(2) A control sequence describing startup, operation, and shutdown.

(3) Description of the function of each principal item of equipment.

(4) Installation instructions.

(5) Maintenance instructions.

(6) Testing methods and procedures.

(7) Performance data.

(8) Parts list. The list shall indicate sources of supply, recommended spare parts, and name of servicing organization most convenient to project site.

(9) Appendix: List qualified permanent servicing organizations for support of the equipment, including addresses and certified qualifications.

1.5 QUANTITY OF SUBMITTALS:

1.5.1 Number of Copies of Product Data:

a. Submit four copies of submittals of product data requiring review and approval only by the QC organization and four copies of product data requiring review and approval by the Contracting Officer.

b. Submit administrative submittals required under “SD-19, Operation and Maintenance Manuals.”

1.5.2 Number of Copies of Shop Drawings: Submit shop drawings in compliance with the quantity requirements specified for product data.

1.5.3 Number of Samples:

a. Submit two samples, or two sets of samples showing range of variation, of each required item. One approved sample or set of samples will be retained by the approving authority and one will be returned to the Contractor.

b. Submit one sample panel. Include components listed in technical section or as directed.

c. Submit one sample installation, where directed.

d. Submit one sample of non-solid materials.

1.5.4 Number of Copies of Administrative Submittals:

a. Unless otherwise specified, submit the administrative submittals compliance with the quantity requirements specified for product data.

b. Submit administrative submittals required under "SD-19, Operation and Maintenance Manuals" to conform to Section 15050 "Basic Mechanical Materials and Methods", or Section 16050, "Basic Electrical Materials and Methods."

1.6 SCHEDULE OF SUBMITTAL DESCRIPTIONS (SD):

SD-01, Data: Submittals which provide calculations, descriptions, or other documentation regarding the work.

SD-02, Manufacturer's Catalog Data: Data composed of catalog cuts, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the contract documents. A type of product data.

SD-03, Manufacturer's Standard Color Charts: Preprinted illustrations displaying choices of color and finish for a material or product. A type of product data.

SD-04, Drawings: Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, detail of fabrications, layout of particular elements, connections, and other relational aspects of the work. A type of shop drawing.

SD-05, Design Data: Design calculations, mix designs, analyses, or other data, written in nature and pertaining to a part of the work. A type of shop drawing.

SD-06, Instructions: Preprinted material describing installation of a product, system, or material, including special notices and Material Safety Data Sheets, if any, concerning impedances, hazards, and safety precautions. A type of product data.

SD-07, Schedules: A tabular list of data or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work. A type of shop drawing.

SD-08, Statements: A document, required of the Contractor, or through the Contractor by way of a supplier, installer, manufacturer, or other lower tier contractor, the purpose of which is to further the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verification of quality. A type of shop drawing.

SD-09, Reports: Reports of inspection and laboratory test, including analysis and interpretation of test results. Each report shall be properly identified. Test methods used and compliance with recognized test standards shall be described.

SD-10, Test Reports: A report signed by an authorized official of a testing laboratory that a material, product, or system identical to the material, product or system to be provided has been tested in accordance with requirements specified by naming the test method and material. The test report must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. Testing must have been within three years of the date of award of this Contract. A type of product data.

SD-11, Factory Test Reports A written report which includes the findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for this project before it is shipped to the job site. The report must be signed by an authorized official of a testing laboratory and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. A type of shop drawing.

SD-12, Field Test Reports: A written report which includes the findings of a test made at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation. The report must be signed by an authorized official of a testing laboratory or agency and must state the test was performed in accordance with the test requirements; state

the test results; and indicate whether the material, product, or system has passed or failed the test. A type of shop drawing.

SD-13, Certificates: Statements signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material meet specified requirements. The statements must be dated after the award of this contract, name the project, and list the specific requirements which it is intended to address. A type of shop drawing.

SD-14, Samples: Samples, including both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work. A type of sample.

SD-15, Color Selection Samples: Samples of the available choice of colors, textures, and finishes of a product or material, presented over substrates identical in texture to that proposed for the work. A type of sample.

SD-16, Sample Panels: An assembly constructed at the project site in a location acceptable to the Contracting Officer and using materials and methods to be employed in the work; completely finished; maintained during construction; and removed at the conclusion of the work or when authorized by the Contracting Officer. A type of sample.

SD-17, Sample Installations: A portion of an assembly or material constructed where directed and, if approved, retained as a part of the work. A type of sample.

SD-18, Records: Documentation to ensure compliance with an administrative requirement or to establish an administrative mechanism. A type of administrative submittal.

SD-19, Operation and Maintenance Manuals: Data intended to be incorporated in an Operations and Maintenance Manual. A type of administrative submittal.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 SUBMITTAL REGISTER INSTRUCTIONS: Use submittal register form for the project's Submittal Register and to track progress of submittals as they are processed.

1. The Government will supply submittal register forms, with columns (a) through (d) completed to the extent that will be required by the Government.

Column (a): Lists each specification section in which a submittal is required.

Column (b): Lists each submittal description (SD No. and type, e.g. SD-04, Drawings) required in each specification section. Follow each submittal description with the list of material or products to be addressed in each submittal description.

Column (c): Lists one principle paragraph in specification section where a material or product is specified. This listing is only to facilitate submittal reviews. Do not consider entries in column (c) as limiting project requirements; do not consider that a blank must be filled in by Contractor or the Government.

Column (d): Indicates approving authority for each submittal. A "R" indicates approval by ROICC; a "400" indicates approval by PWC Code 400; a A/E indicates approval by the private company who designs this project; a blank indicates approval by QC Manager.

Column (e): Indicates, for submittals to be approved by Contracting Officer, specific reviewers other than QC organization. This column may or may not be filled out on the copy supplied by the Government.

2. Column (f) through (i) will be used by Contractor, QC organization and the Government on their own copies to record data established by the Contractor.

Column (f): As submittals are processed, list a consecutive number assigned by Contractor for each group of submittals, Place this same number in the appropriate block of "Submittal Transmittal Form". For a resubmission, repeat transmittal control number of the original submittal with a suffix; e.g. No. 100B" is second resubmission of material originally transmitted under No. "100."

Column (g): List dates scheduled for approving authority to receive submittals. These dates are the scheduled beginnings of submittal review period. The Contractor proposes these dates and the

Contracting Officer approves them to establish the approved Submittal Register.

Column (h) and (i): Use to record Contractor's review when forwarding submittals to the QC organization.

3. Column (j) through column (o) will be used by Contractor, QC organization, and the Government on their own copies, in the following manner:

Contractor

a. Column (j): Enter date submittal is delivered to QC organization if QC Manager is approving authority or to the Government via QC organization if Contracting Officer is approving authority.

b. Columns (k) and (l): No entries are required on Contractor's copy.

c. Columns (m) and (n): Enter action and date of action by approving authority as shown on returned submittal.

d. Column (o): Enter date QC organization receives submittal from Contractor.

QC organization

a. Column (j): Enter date QC organization receives submittal from Contractor.

b. Columns (k) and (l): If approving authority is Contracting Officer, enter date QC organization forwards certified submittal to Contracting Officer.

c. Columns (m) and (n): If approving authority is Contacting Officer, enter the Government action and date of action as shown on returned submittal. If approving authority is QC Manager, enter QC action and date of action.

d. Column (o): Enter date QC organization returns submittal to Contractor, regardless of who is approving authority. If QC Manager is approving authority, it is also the date the information copy is forwarded to the Government.

Government

a. Column (j): When Contacting Officer is approving authority, enter date submittals received from QC organization.

b. Columns (k) and (l): When Contracting Officer is approving authority, enter date submittal is routed or received from specialized reviewer, such as fire protection engineer, architect-engineer, etc.

c. Columns (m) and (n): When approving authority is Contacting Officer, enter the Government action and date of action. When approving authority is QC organization, enter QC Manager action and date of action, as indicated on information copy forwarded by QC organization.

d. Column (o): When Contracting Officer is approving authority, enter date submittal is returned to Contractor via QC organization.

*** END OF SECTION ***

OICC / 3-2 (5-85)

CONTRACTOR APPROVED SUBMITTALS (CQC)

CATALOG CUT / SHOP DRAWING TRANSMITTAL FE 4330 AND APPROVAL

SUBMITTAL NO. _____

PART I (FOR CONTRACTOR USE)

FROM:	TO:
	ROICC

CONTRACT NO.

N62836-

THE FOLLOWING ITEMS ARE SUBMITTED, PER SPECIFICATION SECTION NO._____

ITEM NO. (A)	(USE SEPARATE FORM FOR EACH SPECIFICATION SECTION) (B)	CONTRACTOR ACTION (C)	ROICC ACTION (D)

CONTRACT SPECIFICATIONS REQUIRE FACTORY INSPECTION YES ☐ NO ☐	NEW SUBMITTAL ☐ RESUBMITTAL ☐
SIGNATURE	DATE

PART II (FOR ROICC USE)

FROM:	TO:
ROICC	
SIGNATURE	DATE

FROM:	TO:
ROICC	

ENCLOSURES RETURNED: ACKNOWLEDGEMENT OR DISAPPROVAL INDICATED ABOVE (See Column "D")

SIGNATURE	DATE

ACTION CODES: THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED: (A code letter will be inserted for each item in column D section I above.)

A. APPROVED AS SUBMITTED

B. APPROVED EXCEPT AS NOTED ON DRAWINGS. RESUBMISSION NOT REQUIRED.

C. APPROVED EXCEPT AS NOTED ON DRAWINGS. REFER TO ATTACHED SHEET. RESUBMISSION REQUIRED.

D. WILL BE RETURNED BY SEPARATE CORROSPONDENCE.

E. DISAPPROVED SEE ATTACHED SHEET.

F. RECEIPT ACKNOWLEDGED.

NOTE: Approval of item does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

OICC FE 4330 / 3 (5-85)

CATALOG CUT / SHOP DRAWING TRANSMITTAL AND APPROVAL

SUBMITTAL NO._____

PART I (FOR CONTRACTOR USE)

FROM:	TO: ROICC

CONTRACT NO.

N62836-

THE FOLLOWING ITEMS ARE SUBMITTED FOR REVIEW AND APPROVAL, PER SPECIFICATION SECTION NO._____

ITEM NO. (A)	(USE SEPARATE FORM FOR EACH SPECIFICATION SECTION) (B)	A / E Recommendation (C)	ROICC ACTION (D)

CONTRACT SPECIFICATIONS REQUIRE FACTORY INSPECTION **YES** ☐ **NO** ☐

NEW SUBMITTAL ☐ **RESUBMITTAL** ☐

SIGNATURE **DATE**

PART II (FOR ROICC USE)

FROM: ROICC	TO:

REQUEST YOU REVIEW ABOVE ITEMS AND MAKE RECOMMENDATION AS REQUIRED IN A/E CONTRACT N62836-

SIGNATURE **DATE**

PART III (FOR DESIGNER USE)

FROM:	TO: ROICC

ITEM HAS BEEN REVIEWED. THE FOLLOWING RECOMMENDATION IS MADE AS NOTED ABOVE. (See Column "C")

COMMENTS:

SIGNATURE **DATE**

PART IV (FOR ROICC USE)

FROM: ROICC	TO:

ENCLOSURES RETURNED: APPROVAL OR DISAPPROVAL INDICATED ABOVE (See Column "D")

ACTION CODES: THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED: (A code letter will be inserted for each item in column D section I above.)

A. APPROVED AS SUBMITTED

B. APPROVED EXCEPT AS NOTED ON DRAWINGS. RESUBMISSION NOT REQUIRED.

C. APPROVED EXCEPT AS NOTED ON DRAWINGS. REFER TO ATTACHED SHEET. RESUBMISSION REQUIRED.

D. WILL BE RETURNED BY SEPARATE CORROSPONDENCE.

E. DISAPPROVED SEE ATTACHED SHEET.

NOTE: Approval of item does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

SIGNATURE **DATE**

SUBMITTAL REGISTER (PART A)

Construction Contract No: N62836-03-C-0115
Project Title: Renovate Office, Bldg A40

SPEC SECTION NO	SD NO. AND TYPE OF SUBMITTAL-MATL OR PRODUCTS	SPEC PARA NO.	CLASSIF/ APPR BY CO*	GOV OR A/E REVIEW-ER	TRANS CONTROL NO.	PLANNED SUBMIT-TAL DATE
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1) 01010	Certificate of insurance	1.7.1	R			
2)	Schedule of prices	1.9.1.a	OICC (via R)			
3)	As-built drawings	1.9.1.b	R			
4)	Subcontractors and personnel list	1.9.1.c	R			
5)	Vehicle list	1.9.1.d	R			
6)	Construction schedule (CPM)	1.9.1.e	R			
7)	RFI	1.9.1.f	R			
8) 01330	SD-18, Submittal resister	1.2.1.a	R			
9) 01450	SD-18, Quality control (QC) plan	1.2.1.a	R			
10)01525	SD-13, Accident prevention plan(APP)	1.3.1.a	R			
11)	SD-13, Activity hazard analysis(AHA)	1.3.1.b	R			
12)	SD-13, Health and safety plan(HASP)	1.3.1.c	R			
13)01560	Environmental protection plan	1.3.1	R			
14)	Solid waste disposal permit	1.3.2	R			
15)	Disposal permit for hazardous waste	1.3.3	R			
16)01801	SD-08, Notification for entering with crane.	1.1.a	R			
17)	SD-13, Certification for equipment	1.1.b	R			
18)	SD-13, Certification for operators	1.1.c	R			
19)	Accident reports	1.1.d	R			
20)02220	SD-08, Demolition plan	1.2.1.a	R			
21)	SD-13, Disposal manifest	1.2.2.a	R			
22)	SD-18, Waste identification documentation	1.2.3.a				
23)06200	SD-02, System kitchen set	1.2.1.a	400			
24)	SD-04, Installation details of system kitchen set	1.2.2.a	400			
25)07513	SD-08, Experience record	1.2.1	R			
26)09310	SD-15, Ceramic tile	1.2.1.a	R			
27)	SD-15, Mosaic tile	1.2.2.b	R			
28)09651	SD-15, Vinyl sheet	1.2.1.a	R			
29)	SD-15, Vinyl tile	1.2.1.b	R			
30)09685	SD-02, Carpet tile	1.2.1.a	400			
31)	SD-15, Carpet tile	1.2.2.a	R			
32)09900	SD-13, MSDS	1.2.1.a	R			
33)10153	SD-04, Construction details of shower pan	1.2.1.a	400			

SUBMITTAL REGISTER (PART A)

Construction Contract No: N62836-03-C-0115
Project Title: Renovate Office, Bldg A40

SPEC SECTION NO	SD NO. AND TYPE OF SUBMITTAL-MATL OR PRODUCTS	SPEC PARA NO.	CLASSIF/ APPR BY CO*	GOV OR A/E REVIEW-ER	TRANS CONTROL NO.	PLANNED SUBMIT-TAL DATE
(a)	(b)	(c)	(d)	(e)	(f)	(g)
34)13281	SD-03, Protective clothing	1.4.1.a	R			
35)	SD-03, Filters for vacuum cleaner	1.4.1.b	R			
36)	SD-03, Respirators	1.4.1.c	R			
37)	SD-03, Wetting agent	1.4.1.d	R			
38)	SD-03, Glovebags	1.4.1.e	R			
39)	SD-07, Asbestos hazard abatement plan	1.4.2.a	R			
40)	SD-07, Qualification of CP	1.4.2.b	R			
41)	SD-07, Landfill approval	1.4.2.c	R			
42)	SD-07, Worker training	1.4.2.d	R			
43)	SD-07, Waste shipment records	1.4.2.e	R			
44)	SD-07, Respiratory protection program	1.4.2.f	R			
45)	SD-07, Hazardous waste manifest	1.4.2.g	R			
46)	SD-07, Vacuum	1.4.2.h	R			
47)	SD-07, Qualification of QPEAM	1.4.2.i	R			
48)	SD-07, Testing laboratory	1.4.2.j	R			
49)	SD-11, Notifications	1.4.3.a	R			
50)	SD-11, Rental equipment	1.4.3.b	R			
51)	SD-11, Respirator program records	1.4.3.c	R			
52)	SD-11, Permits and licenses	1.4.3.d	R			
53)	SD-06, Air sampling results	1.4.4.a	R			
54)13852	SD-02, Smoke detector	1.2.1.a	400			
55)	SD-02, Heat detector	1.2.1.b	400			
56)	SD-04, Combined fire alarm station	1.2.2.a	400			
57)	SD-04, Fire alarm system wiring diagram	1.2.2.b	400			
58)	SD-04, Wires	1.2.2.c	400			
59)	SD-04, Conduits	1.2.2.d	400			
60)	SD-04, Combined fire alarm station	1.2.2.e	400			
61)	SD-12, Smoke and heat detector test	1.2.3.a	R			
62)	SD-13, Qualifications of installer	1.2.4.a	R			
63)15400	SD-02, Pipe and fittings	1.4.1.a	-			
64)	SD-02, Valves	1.4.1.b	-			
65)	SD-02, Pressure reducing valves	1.4.1.c	-			
66)	SD-02, Backflow preventers	1.4.1.d	-			

SUBMITTAL REGISTER (PART A)

Construction Contract No: N62836-03-C-0115
Project Title: Renovate Office, Bldg A40

SPEC SECTION NO	SD NO. AND TYPE OF SUBMITTAL-MATL OR PRODUCTS	SPEC PARA NO.	CLASSIF/ APPR BY CO*	GOV OR A/E REVIEW-ER	TRANS CONTROL NO.	PLANNED SUBMIT-TAL DATE
(a)	(b)	(c)	(d)	(e)	(f)	(g)
67)	SD-02, Plumbing fixtures	1.4.1.e	-			
68)	SD-02, Electric hot water storage heater	1.4.1.f	-			
69)	SD-02, Toilet accessories	1.4.1.g	-			
70)	SD-19, Electric hot water storage heater	1.4.2.a	R			
71)	SD-19, Pressure reducing valves	1.4.2.b	R			
72)	SD-19, Backflow preventers	1.4.2.c	R			
73)	SD-12, Backflow preventer test reports	1.4.3	R			
74)15653	SD-02, Air cooled multiple type heat pump air conditioning systems	1.3.1.a	400			
75)	SD-02, Air cooled type heat pump air conditioning system (for outside air conditioning system)	1.3.1.b	400			
76)	SD-19, Air cooled multiple type heat pump air conditioning systems	1.3.2.a	R			
77)	SD-19, Air cooled type heat pump air conditioning system (for outside air conditioning system)	1.3.2.b	R			
78)15840	SD-02, Total heat recovery type ventilator and accessories	1.3.1.a	-			
79)	SD-02, Ceiling mounted type exhaust fans and accessories	1.3.1.b	-			
80)	SD-19, Total heat recovery type ventilator and accessories	1.3.2.a	R			
81)	SD-19, Ceiling mounted type exhaust fans and accessories	1.3.2.b	R			
82)16402	SD-04, Panelboard	1.3.1.a	400			
83)	SD-04, Breaker boxes	1.3.1.b	400			
84)	SD-04, Disconnecting switch box	1.3.1.c	400			
85)	SD-12, 600 volt wiring test	1.3.2.a	R			
86)16510	SD-04, Lighting fixture assemblies	1.3.1.a				
87)	SD-04, Exit light	1.3.1.b				
88)	SD-04, Emergency light	1.3.1.c				
89)	SD-12, Operation test	1.3.2.a	R			

SUBMITTAL REGISTER (PART A)

Construction Contract No: N62836-03-C-0115
Project Title: Renovate Office, Bldg A40

SPEC SECTION NO	SD NO. AND TYPE OF SUBMITTAL-MATL OR PRODUCTS	SPEC PARA NO.	CLASSIF/ APPR BY CO*	GOV OR A/E REVIEW-ER	TRANS CONTROL NO.	PLANNED SUBMIT-TAL DATE
(a)	(b)	(c)	(d)	(e)	(f)	(g)

* Notes: Approved by: R: ROICC / 400: Code 400/Blank: CQC Manager

SUBMITTAL RESISTER (PART B)

Location: Contractor:

CONTRACTOR ACTION			APPROVING AUTHORITY ACTION				CONTR	
ACT CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/DATE RECD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RECD FROM OTHER REVIEWER	ACT. CODE	DATE OF ACTION	MAILED TO CONTR/ RECD FROM APPR AUTH	REMARKS
(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
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SUBMITTAL RESISTER (PART B)

Location: Contractor:

CONTRACTOR ACTION			APPROVING AUTHORITY ACTION				CONTR	
ACT CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/DATE RECD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RECD FROM OTHER REVIEWER	ACT. CODE	DATE OF ACTION	MAILED TO CONTR/ RECD FROM APPR AUTH	REMARKS
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ACTION CODES: NR: Not Reviewed \ AN: Approved as Noted \ A: Approved / RR: Disapproved ; Revise and Resubmit (Others may be prescribed by the Tansmittal Form)

SECTION 01450

QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Science and Technology Agency Publication:

2000-2001	List of Testing Laboratories (Zen-koku Shiken Kenkyu Kikan Meikan)
July 1999	NAVFAC P-455 Quality Management Program

1.2 SUBMITTALS: Submit the following in accordance with Section 01330, "Submittal Procedures."

1.2.1 SD-18, Records:

a. Quality Control (QC) Plan: Submit a QC plan within 15 calendar days after the date of Award.

1.3 INFORMATION FOR THE CONTRACTING OFFICER: Deliver the following to the Contracting Officer:

a. Combined Contractor Production Report(2 sheet, ATTACHMENT-1 and 2)/Contractor Quality Control Report (2 sheets, ATTACHMENT-3 and 4): Original, by 10:00 AM the next working day after each day that work is performed;

b. Field Test Reports: 1 copy, within 2 working days after the test is performed, attached to the Contractor Quality Control Report;

c. Monthly Summary Report of Tests: 1 copy attached to the Contractor Quality Control Report;

d. Testing Plan and Log (1 sheet, ATTACHMENT-11): 1 copy, at the end of each month;

e. Rework Items List (1 sheet, ATTACHMENT-10): 1 copy, by the last working day of the month

f. QC Meeting Minutes: 1 copy, within 2 working days after the meeting and;

g. QC Certifications: As required by the paragraph 1.10, entitled "QC CERTIFICATIONS."

1.4 QC PROGRAM REQUIREMENTS: Establish and maintain a QC program as described in this section. The QC program consists of a QC Organization, a QC Plan, a Coordination and Mutual Understanding Meeting, three phases of control, submittal review and approval, testing, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this Contract. The QC program shall cover on-site and off-site work and shall be keyed to the work sequence.

1.4.1 Preliminary Work Authorized Prior to Approval: The only work that is authorized to proceed prior to the approval of the QC Plan is mobilization of storage and office trailers, temporary utilities, and surveying.

1.4.2 Approval: Approval of the QC Plan is required prior to the start of construction. The Contracting Officer reserves the right to require changes in the QC Plan and operations as necessary to ensure the specified quality of work. The Contracting Officer reserves the right to interview any member of the QC organization at any time in order to verify the submitted qualifications.

1.4.3 Notification of Changes: Notify the Contracting Officer, in writing, of any proposed change, including changes in the QC organization personnel, a minimum of seven calendar days prior to a proposed change. Proposed changes must be approved by the Contracting Officer.

1.5 QC ORGANIZATION:

1.5.1 QC Manager:

1.5.1.1 Duties: Provide a QC Manager at the work site to implement and manage the QC program. If the Contractor requests approval from the Contracting Officer, the QC Manager may perform the duties of project superintendent.

The QC Manager is required to be on the job site while work is in progress, and to attend the Coordination and Mutual understanding Meeting, conduct the QC meetings, perform the three phases of control, perform submittal review, perform submittal approval, ensure

testing is performed and provide QC certifications and documentation required in this Contract. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by Testing Laboratory personnel and any other inspection and testing personnel required by this contract. The QC Manager shall provide the documentation at the meeting in the form of meeting minutes on the prescribed forms covering the topics which the attendees are scheduled to discuss at the meeting.

1.5.1.2 Qualifications: An individual with a minimum of 5 years experience as a superintendent, inspector, QC Manager, project manager, or construction manager on similar size or larger and type construction contracts which included the major trades that are part of this Contract or equivalent qualification approved by the local law.

1.5.1.3 Construction Quality Management Training: In addition to the above experience requirements, the QC manager shall have attended and completed ROICC Yokosuka's "Construction Quality Management (CQM)" course or equivalent. If the QC Manager does not have a current certification, they shall obtain CQM course certification after the award. Submit the proof of completion of the course to the Contracting Officer attached to his QC plan.

1.5.2 Alternate QC Manager Duties and Qualifications: Designate an alternate for the QC Manager at the work site to serve in the event of the designated QC Manager's absence i.e. vacation, illness, only. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a calendar year. The qualification requirements for the Alternate QC Manager shall be the same as for the QC manager. Alternate QC manager shall not routinely fill in for QC manager to leave the job site.

1.5.3 Submittal Reviewers: Duties and Qualifications: Provide Submittal Reviewers, qualified in the disciplines being reviewed, to review and certify that the submittals meet the requirements of this Contract prior to certification or approval by the QC Manager.

Each submittal shall be reviewed by an individual, with 5 years of construction experience in similar size and type.

1.6 QUALITY CONTROL (QC) PLAN:

1.6.1 Requirements: Provide for approval by the Contracting Officer, a QC plan submitted with pages numbered sequentially that covers, both on-site and off-site work and includes, the following:

a. A table of contents listing the major sections identified with tabs in the following order:

I. QC ORGANIZATION
II. NAMES AND QUALIFICATIONS
III. DUTIES, RESPONSIBILITY AND AUTHORITY OF QC PERSONNEL
IV. OUTSIDE ORGANIZATIONS
V. APPOINTMENT LETTERS
VI. SUBMITTAL PROCEDURES AND INITIAL SUBMITTAL REGISTER
VII. TESTING LABORATORY INFORMATION VIII. TESTING PLAN AND LOG
IX. PROCEDURES TO COMPLETE REWORK ITEMS
X. DOCUMENTATION PROCEDURES
XI. QUALITY CONTROL CHECKLIST
XII. PERSONNEL MATRIX

b. A chart showing the QC organizational structure and its relationship to the production side of the organization.

c. Names and qualifications, in resume format, for each person in the QC organization.

d. Duties, responsibilities and authorities of each person in the QC organization.

e. A listing of outside organizations such as, architectural and consulting engineering firms that will be employed by the Contractor and a description of the services these firms will provide.

f. A letter signed by an officer of the firm appointing the QC Manager and stating that he/she is responsible for managing and implementing the QC program as described in this contract. Include in this letter the QC Manager's authority to direct the removal and replacement of non-conforming work.

g. Procedures for reviewing, approving and managing submittals. Provide the names of the persons in the QC organization authorized to review and certify submittals prior to approval. Provide the initial submittal or the Submittal Register as specified in Section 01330, "Submittal Procedures."

h. Testing laboratory information required by the paragraphs entitled "Testing Laboratory Requirements", as applicable.

i. A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test.

j. Procedures to identify, record, track and complete rework items.

k. Documentation procedures, including proposed report formats. (ATTACHMENT-5 and -6)

l. A Quality Control Checklist that includes:

- List of definable features of work, following the order of specification sections. Definable feature of work is a task which is separate and distinct from other tasks, and requires separate control procedures. It could be identified by different trades or disciplines, or by separate work activities. Although each section may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination and mutual understanding meeting.

- List of construction contract numbers assigned to each preparatory, initial and follow-up phases for each definable feature of work in the construction schedule;

- Schedule showing planned and actual dates of the preparatory, initial and follow-up phases for each definable feature of work, including testing and any other inspection required by this contract; and

- Procedures to be followed in preparatory, initial and follow-up phases.

1.7 THREE PHASES OF CONTROL: The Three Phases of Control shall adequately cover both on-site and off-site work and shall include the following for each definable features of work.

1.7.1 Preparatory Phase: Notify the Contracting Officer at least 2 work days in advance of each preparatory phase. Conduct the preparatory phase with the superintendent, the foreman responsible for the definable feature, and the Government construction representative. The Contractor shall provide documentation at the meeting in the form of meeting minutes on the prescribed forms covering the topics to be discussed. Document the results of the preparatory phase actions in the daily Contractor Quality Control Report and in the Quality Control Checklist (ATTACHMENT-7 and -8). Perform the following prior to beginning work on each definable feature of work:

a. Review each paragraph of the applicable specification sections;

b. Review the Contract drawings;

c. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;

d. Review the testing plan and ensure that provisions have been made to provide the required QC testing;

e. Examine the work area to ensure that the required preliminary work has been completed;

f. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;

g. Review the safety plan and appropriate activity hazard analysis to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDS) are submitted; and

h. Discuss construction methods and the approach that will be used to provide quality construction through problem avoidance for each definable feature of work.

1.7.2 Initial Phase: Notify the Contracting Officer at least 5 work days in advance of each initial phase. When construction crews are ready to start work on a definable feature of work, conduct the initial phase with the superintendent, and the foreman responsible for that definable feature of work. Observe the initial segment of the definable feature of work to ensure that the work complies with Contract requirements. Document the results of the initial phase in the daily Contractor Quality Control Report and in the Quality Control Checklist (ATTACHMENT-9). Repeat the initial phase for each new crew to work on-site, or when acceptable levels of specified quality are not being met. Perform the following for each definable feature of work:

a. Establish the quality of workmanship required;

b. Resolve conflicts;

c. Review the Safety Plan and the appropriate activity hazard analysis to ensure that applicable safety requirements are met; and

d. Ensure that testing is performed by the approved laboratory.

1.7.3 Follow-Up Phase: Perform the following for on-going work daily, or more frequently as necessary until the completion of each definable feature of work and document in the daily Contractor Quality Control Report and in the Quality Control Checklist:

a. Ensure the work is in compliance with Contract requirements;

b. Maintain the quality of workmanship required;

c. Ensure that testing is performed by the approved laboratory; and

d. Ensure that rework items are being corrected.

1.7.4 Notification of Three Phases of Control for Off-Site Work: Notify the Contracting Officer at least two weeks prior to the start of the preparatory and initial phases.

1.8 SUBMITTAL REVIEW AND APPROVAL : Procedures for submission, review and approval of submittals are described in Section 01330, "Submittal Procedures."

1.9 TESTING: Except as stated otherwise in the specification sections, perform sampling and testing required under this Contract.

1.9.1 Testing Laboratory Requirements: Provide an independent testing laboratory which is listed on "List of Testing Laboratories (Zen-koku Shiken Kenkyu Kikan Meikan)".

1.9.2 Inspection of Testing Laboratories: Prior to approval of non-listed laboratories, the proposed testing laboratory facilities and records may be subject to inspection by the Contracting Officer. Records subject to inspection include equipment inventory, equipment calibration dates and procedures, library of test procedures, audit and inspection reports by agencies conducting laboratory evaluations and certifications, testing and management personnel qualifications, test report forms, and the internal QC procedures.

1.9.3 Capability Check: The Contracting Officer retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this Contract.

1.9.4 Test Results: Cite applicable Contract requirements, tests and analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If item fails to conform, notify Contracting Officer immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results shall be signed by a testing laboratory representative authorized to sign certified test reports. Furnish the signed reports with stamp, certifications, and other documentation to the Contracting Officer via the QC Manager. Furnish a summary report of field tests at the end of each month. Attach a copy of the summary report to the last daily Contractor Quality Control Report of each month.

1.9.5 Test Reports and Monthly Summary Report of Tests: The QC Manager shall furnish the signed reports, certifications, and a summary report of field tests at the end of each month to the Contracting Officer. Attach a copy of the summary report to the last daily Contractor Quality Control Report of each month.

1.10 QC CERTIFICATIONS:

1.10.1 Contractor Quality Control Report Certification: Each Contractor Quality Control Report shall contain the following statement: "On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report".

1.10.2 Invoice Certification: Furnish a certificate to the Contracting Officer with each payment request, signed by the QC Manager, attesting that as-built drawings are current and attesting that the work for which payment is requested, including stored material, is in compliance with contract requirements.

1.10.3 Completion Certification: Upon completion of work under this Contract, the QC Manager shall furnish a certificate to the Contracting Officer attesting that "the work has been completed, inspected, tested and is in compliance with the Contract".

1.11 DOCUMENTATION: Maintain current and complete records of on-site and off-site QC program operations and activities.

1.11.1 Contractor Production Report: Reports are required for each day that work is performed and shall be attached to the

Contractor Quality Control Report prepared for the same day. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Production Reports are to be prepared, signed and dated by the project superintendent and shall contain the following information:

a. Date of report, report number, name of contractor, Contract number, title and location of Contract and superintendent present.

b. Weather conditions in the morning and in the afternoon including maximum and minimum temperatures.

c. A list of Contractor and subcontractor personnel on the work site, their trades, employer, work location, description of work performed and hours worked.

d. A list of job safety actions taken and safety inspections conducted. Indicate that safety requirements have been met including the results on the following:

- Was a job safety meeting held? (If YES, attach a copy of the meeting minutes.)

- Were there any lost time accidents? (If YES, attach a copy of the completed OSHA report.)

- Was crane/trenching/scaffold/high voltage electrical/high work done? (If YES, attach a statement or checklist showing inspection performed.)

- Was hazardous material/waste released into the environment? (If YES, attach a description of meetings held and accidents that happened.)

e. A list of equipment/material received each day that is incorporated into the job.

f. A list of construction and plant equipment on the work site including the number of hours used, idle and down for repair.

g. Include a "remarks" section in this report which will contain pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site.

1.11.2 Contractor Quality Control Report: Reports are required for each day that work is performed and for every seven consecutive calendar days of no-work and on the last day of a no-work period. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Quality Control Reports are to be prepared, signed and dated by the QC Manager and shall contain the following information:

a. Identify the control phase and the definable feature of work.

b. Results of the Preparatory Phase meetings held including the location of the definable feature of work and a list of personnel present at the meeting. Indicate in the report that for this definable feature of work, the drawings and specifications have been reviewed, submittals have been approved, materials comply with approved submittals, materials are stored properly, preliminary work was done correctly, the testing plan has been reviewed, and work methods and schedule have been discussed.

c. Results of the Initial Phase meetings held including the location of the definable feature of work and a list of personnel present at the meeting. Indicate in the report that for this definable feature of work the preliminary work was done correctly, samples have been prepared and approved, the workmanship is satisfactory, test results are acceptable, work is in compliance with the Contract, and the required testing has been performed and include a list of who performed the tests.

d. Results of the Follow-up Phase inspections held including the location of the definable feature of work. Indicate in the report for this definable feature of work that the work complies with the Contract as approved in the Initial Phase, and that required testing has been performed and include a list of who performed the tests.

e. Results of the three phases of control for off-site work, if applicable, including actions taken.

f. List the rework items identified, but not corrected by close of business.

g. List the rework items corrected from the rework items list along with the corrective action taken.

h. Include a "remarks" section in this report which will contain pertinent information including directions received, quality control

problem areas, deviations from the QC plan, construction deficiencies encountered, QC meetings held, acknowledgement that as-built drawings have been updated, corrective direction given by the QC Organization and corrective action taken by the Contractor.

i. Contractor Quality Control Report certification.

1.11.3 Testing Plan and Log: As tests are performed, the QC Manager shall record on the "Testing Plan and Log" the date the test was conducted, the date the test results were forwarded to the Contracting Officer, remarks and acknowledgment that an Contracting Officer approved testing laboratory was used. Attach a copy of the updated "Testing Plan and Log" to the last daily Contractor Quality Control Report of each month.

1.11.4 Rework Items List: The QC Manager shall maintain a list of work that does not comply with the Contract, identifying what items need to be reworked, the date the item was originally discovered, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the "Contractor Rework Items List" to the last daily Contractor Quality Control Report of each month. The Contractor shall be responsible for including on this list items needing rework including those identified by the Contracting Officer.

1.11.5 As-Built Drawings: The QC Manager is required to review the as-built drawings required by Section 01010, "General Paragraphs," to ensure that as-built drawings are kept current on a daily basis and marked to show deviations which have been made from the Contract drawings, and to keep them at all times during work performance. The QC Manager shall initial each deviation and each revision. Upon completion of work, the QC Manager shall furnish a certificate attesting to the accuracy of the as-built drawings prior to submission to the Contracting Officer.

1.11.6 Report Forms: All reports shall be provided to the Contracting Officer in computer-generated or typewriter written. Electronic copies of these forms are available upon request from the ROICC Office. No hand-written reports will be accepted. The following forms, which are attached at the end of this section, are acceptable for providing the information required by the paragraph entitled "Documentation". While use of these specific formats are not required, any other format used shall contain the same information:

a. Combined Contractor Production Report and Contractor Quality Control Report (1 sheet), with separate continuation sheet.

b. Testing Plan and Log.

c. Deficiency Status Log (Rework Items List).

1.12 NOTIFICATION ON NON-COMPLIANCE: The Contracting Officer will notify the Contractor of any detected non-compliance with the foregoing requirements. The contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time for excess costs or damaged by the Contractor.

PART 2 PRODUCTS and PART 3 EXECUTION

Not used.

*** END OF SECTION ***

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE

CONTRACT NO	TITLE AND LOCATION	REPORT NO

CONTRACTOR	SUPERINTENDENT	

AM WEATHER	PM WEATHER	MAX TEMP F	MIN TEMP F

WORK PERFORMED TODAY

Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS

JOB SAFETY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☐ YES ☐ NO
(if YES attach copy of the meeting minutes)

WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? ? ☐ YES ☐ NO
(if YES attach copy of completed OSHA report)

WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/HAZMAT WORK DONE? ☐ YES ☐ NO
if YES attach statement or check list showing inspection performed.)

WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? ? ☐ YES ☐ NO
(If YES attach description of incident and proposed action.)

TOTAL WORK HOURS ON JCB SITE THIS DATE, INCL CONT SHEETS	
CUMLATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
TOTAL WORK HOURS FROM START OF CONSTRUCTION	

Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED	SAFETY REQUIREMENTS ☐ HAVE BEEN MET

EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)

Schedule Activity No.	Submittal #	Description of Equipment/Material Received

CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURES USED AND SCHEDULE ACTIVITY NUMBER

Schedule Activity No.	Owner	Description of Construction Equipment Used Today (incl Make and Model)	Hours Used

Schedule Activity No.	REMARKS
	CONTRACTOR/SUPERINTENDENT DATE

COMBINED FORM 01450-1 (9/98) SHEET OF

CONTRACTOR PRODUCTION REPORT

(CONTINUATION SHEET)

DATE

CONTRACT NO | TITLE AND LOCATION | REPORT NO

WORK PEFRFORMED TODAY

Schedule Activity No.	WORK LOCATION AND DESCTIOTION	EMPLOYER	NUMBER	TRADE	HRS

Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY / SAFETY INSPECTIONS CONDUCTED

EQUIPMENT / MATERIAL RECEIVED TADAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)

Schedule Activity No.	Submittal #	Description of Equipment / Material Received

CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.

Schedule Activity No.	Owner	Description of Equipment Used Today (incl Make and Model)	Hours Used

Schedule Activity No.	REMARKS

INCLUDE PERSONNEL WOEK HOURS IN THE WORK PERFORMED SECTION ON THEIS SHEET

INTO THE FRONT CONTRACTOR PRODUCTION REPORT

CONBINED FORM 01450-3 (9/98) SHEET OF

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIOAL SHEETS IF NECESSARY)

DATE

REPORT NO

PHASE | CONTRA CT NO | CONTRACT TITLE

PREPARATION

WAS PREPARATORY PHASE WORK PREFORMED TODAY? YES ☐ NO ☐

IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECK LIST

Schedule Activity No.	Definable Feature of work	Index #

INITIAL

WAS INITIAL PHASE WORK PERFORMED TODAY? YES ☐ NO ☐

IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECK LIST

Schedule Activity No.	Definable Feature of work	Index #

FOLLOW-UP

WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITINAL PHASE? YES ☐ NO ☐

WORK COMPLIES WIRH SAFETY REQUIREMENTS? YES ☐ NO ☐

Schedule Activity No.	Definable Feature of work Section, Location and List of Personnel Present

REWORK ITEMS IDINTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)

Schedule Activity No.	Description

REWORK ITEM CORRECTED TODAY (FROM REWORK ITEMS LIST)

Schedule Activity No.	Description

REMARKS (Also Explain Any follow-up Phase Checklist From Above That Was Answered "No"), Manuf. Rep On-Site, etc

Schedule Activity No.	Description

On behalf of the contractor, I certify that this report is complete and correct and equipment and material Used and work performed during this reporting period is in compliance with the contract drawings and Specifications to the best of my knowledge except as noted in this report.

AUTHORIZED QC MANAGER SITE DATE

GOVERNMENT QUALITY ASSURANCE REPORT

DATE

QUALITY ASSURANCE REPRESENTATIVES REMARKS ANOTHER EXCEPTIONS TO THE REPORT

GOVERNMENT QUALITY ASSURANCE MANAGER DATE

COMBINED FORM 01450-1 (9/98) (BACK) SHEET OF

CONTRACTOR QUALITY CONTROL REPORTS

(CONTINUATION SHEET)
(ATTACH ADDITIONAL SHEET IF NECESSARY)

DATE

REPORT NO.

PHASE	CONTRACT NO	CONTRACT TITLE

INITIAL PHASE (CONTINUATION)

WAS INITIAL PHASE WORK PREFORMED TODAY? YES ☐ NO ☐

IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.

Schedule Activity No.	Definable Feature of Work

REMARKS (Also Explain Any Checklist Item From Above That Answered "NO"). Manufacturer's Rep. On-site, etc.

Schedule Activity No.	Description

Combined form 01450-2 (9/98) SHEET OF

CONTRACTOR QUALITY CONTROL REPORTS

(CONTINUATION SHEET)
(ATTACH ADDITIONAL SHEET IF NECESSARY)

DATE

REPORT NO.

PHASE	CONTRACT NO	CONTRACT TITLE
PREPARATORY PHASE (CONTINUATION)	WAS PREPARATORY PHASE WORK PREFORMED TODAY? YES ☐ NO ☐	
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.	

Schedule Activity No.	Definable Feature of Work

REMARKS (Also Explain Any Checklist Item From Above That Answered "NO"). Manufacturer's Rep. On-site, etc.

Schedule Activity No.	Description

Combined form 01450-2 (9/98) SHEET OF

CONTRACTOR QUALITY CONTROL REPORTS

(CONTINUATION SHEET)
(ATTACH ADDITIONAL SHEET IF NECESSARY)

DATE

REPORT NO.

PHASE

CONTRACT NO

CONTRACT TITLE

WORK COMPLIES WITH CONTRACT AS APPROVED SURING INITIAL PHASE YES ☐ NO ☐

WORK CONPLIES WITH SAFETY REQUIREMENTS? YES ☐ NO ☐

FOLLOW-UP (CONTINUATION)

Schedule Activity No.	Description of Work, Testing Performed By Whom, Definable of Work, Specification Section, Location and List of Personnel Present

REMARKS (Also Explain Any Checklist Item From Above That Answered "NO"). Manufacturer's Rep. On-site, etc.

Schedule Activity No.	Description

Combined form 01450-2 (9/98) SHEET OF

PREPARATORY PHASE CHECKLIST

(CONTINUED ON SECOND PAGE)

SPEC SECTION	DATE
Enter Spec Section # Here	Enter Date (DD/MMM/YY)

CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
Enter Cnt# Here	Enter DFOW Here	Enter Sched Act ID Here	Enter Index# Here

PERSONNEL PRESENT

GOVERNMENT REP NOTIFIED ____ HOURS IN ADVANCE: YES ☐ NO ☐

NAME	POSITION	COMPANY/GOVERNMENT

SUBMITTALS

REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES ☐ NO ☐

IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____

ARE ALL MATERIALS ON HAND? YES ☐ NO ☐

IF NO, WHAT ITEMS ARE MISSING? _____

CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.)

COMMENTS: _____

MATERIAL STORAGE

ARE MATERIALS STORED PROPERLY? YES ☐ NO ☐

IF NO, WHAT ACTION IS TAKEN? _____

SPECIFICATIONS

REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____

DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____

CLARIFY ANY DIFFERENCES. _____

PRELIMINARY WORK & PERMITS

ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE.

IF NOT, WHAT ACTION IS TAKEN? _____

TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM.
	WHEN REQUIRED?
	WHERE REQUIRED?
	REVIEW TESTING PLAN.
	HAS TEST FACILITIES BEEN APPROVED?
SAFETY	ACTIVITY HAZARD ANALYSIS APPROVED? YES ☐ NO ☐
	REVIEW APPLICABLE PORTION OF EM 385-1-1.
MEETING COMMENTS	NAVY/ROICC COMMENTS DURING MEETING.
OTHER ITEMS OR REMARKS	OTHER ITEMS OR REMARKS:

QC MANAGER DATE

INITIAL PHASE CHECK LIST

SPEC SECTION	DATE

CONTRACT NO	DEFINABLE FEATURE CHECK	SCHEDULE ACT NO	INDEX#

PERSONNEL PRESENT

GOVERNMENT REP NOTIFIED _____HOURS IN ACVANCE : YES ☐ NO ☐

NAME	POSITION	COMPANY GOVERNMENT

PROCEDURE COMPLIANCE

IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. CORDINATE PLANS

SPECIFICATIONS AND SUBMITTALS

COMMENTS: _____

PRELIMINARY WORK

ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT.. IF NOT, WHAT ACTION IS TAKEN?

WORKMAN HIP

ESTABLISH LEVEL OF WORKMANSHIP

WHRE IS WORK LOCATED? _____

IS SAMPLE PANEL REQUIRED? YES ☐ NO ☐

WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES ☐ NO ☐

(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIVE LOCATIONOF SAMPLE)

RESOLUTION

RESOLVE ANY DIFFERENCE

COMMENTS: _____

CHECK SAFETY

REVIEW JOB CONDITION USING EM 385-1-1 AND JOB HAZARD ANALYSYS

COMMENTS: _____

OTHER

OTHER ITEMS OR REMARKS

_____

QC MANAGER DATE

REV DATE: 9/98 SHEET OF

REWORK ITEMS LIST

Contractor No. and Title: _____

Contractor: _____

NUMBER	DATE IDENTIFIED	DESCRIPTION	CONTRACT REQUIREMENT (Spec. Section and Par.No.Drawing No. And Detail No., etc.)	ACTION TAKEN BY THE QC MANAGER	RESOLUTION	DATE COMPLETED

42963/3 9/98 SHEET OF

42-03-0115
01450-ATTACHMENT-10

TESTING PLAN AND LOG

CONTRACT NUMBER			PROJECT TITLE AND LOCATION							CONTRACTOR	
SPECIFICATION SECTION AND PARAGRAPH NUMBER	ITEM OF WORK	TEST REQUIRED	ACCREDITED/ APROVED LAB		SAMPLED BY	TESTED BY	LOCATION OF TEST		DATE COMPLETED	DATE FORWARDED TO CONTR. OFF.	REMARKS
			YES	NO			ON SITE	OFF SITE			

SECTION 01525

SAFETY REQUIREMENTS

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI):

ANSI A10.14	(1991) Construction and Demolition Operations Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use
ANSI Z359.1	(1992) Safety Requirements for Personal Fall Arrest Systems

1.1.2 CODE OF FEDERAL REGULATIONS (CFR):

29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1926.502(f)	Warning Line Systems

1.1.3 U. S. ARMY CORPS OF ENGINEERS (USACE):

COE EM-385-1-1	(1996) Safety and Health Requirements Manual

1.1.4 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):

NFPA 70	(1999) National Electrical Code
NFPA 241	(1996) Safeguarding Construction, Alteration, and Demolition Operations

1.2 DEFINITIONS:

a. Certified Industrial Hygienist: An industrial hygienist is an individual who is certified by the American Board of Industrial

Hygiene or an equivalent person who has a qualification as the labor hygiene consultant (“Rodou-eisei Konsarutanto”) certified by the Industrial Safety Law, Japan.

b. Certified Safety Professional: A safety manager, safety specialist, or safety engineer that has passed the CSP exam administered by the Board of Certified Safety Professionals, or an equivalent person who has a qualification as the labor safety consultant (“Rodou-anzen Konsarutanto”) certified by the Industrial Safety Law, Japan..

c. Competent Person: A competent person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

d. First Aid: First aid is any one-time treatment, and any follow-up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care, even though provided by a physician or registered professional personnel.

e. Health and Safety Plan (HASP): The HASP is the Navy equivalent Army term of SHP or SSHP used in COE EM-385-1-1. "USACE" property and equipment specified in COE EM-385-1-1 should be interpreted as Government property and equipment.

f. Lost Workdays: The number of days (consecutive or not) after, but not including, the day of injury or illness during which the employee would have worked but could not do so; that is, could not perform all or part of his normal assignment during all or any part of the workday or shift; because of the occupational injury or illness.

g. Medical Treatment: Medical treatment includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

h. Multi-employer work site (MEWS): A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Navy considers the prime contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

i. Qualified Person: One who, by possession of a recognized degree, certificate, or professional standing, or extensive

knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems related to the subject matter, the work or the project.

j. Recordable Occupational Injuries or Illnesses: Any occupational injuries or illnesses which result in:

(1) Fatalities, regardless of the time between the injury and death, or the length of the illness; or

(2) Lost Workday Cases, other than fatalities, that result in lost workdays, or

(3) Non-Fatal Cases without lost workdays which result in transfer to another job or termination of employment, or require medical treatment (other than first aid) or involve: loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illnesses which are reported to the employer but are not classified as facilities or lost workday cases.

k. Safety Officer: The superintendent or other qualified or competent person who is responsible for the on-site safety required for the project. The contractor quality control person cannot be the safety officer, even through the QC has safety inspection responsibilities as part of the QC duties.

l. Serious Accidents. Any work-related incident, which results in, a fatality, in-patient hospitalization of three or more employees, or property damage in excess of ¥20,000,000.

m. Significant Accident. Any contractor accident which involves falls of 1.2 m or more, electrical accidents, confined space accidents, diving accidents, equipment accidents, crane accident or fire accidents, which, result in property damage of ¥1,000,000 or more, but less than ¥20,000,000; or when fire department or emergency medical treatment (EMT) assistance is required.

1.3 SUBMITTALS: Submit the following in accordance with Section 01330, "Submittal Procedures."

1.3.1 SD-13, Certificates:

a. Accident Prevention Plan (APP)
b. Activity Hazard Analysis (AHA)
c. Health and Safety Plan (HASP)

1.4 QUALITY ASSURANCE:

1.4.1 Qualifications:

a. Qualifications of Safety Officer:

(1) Ability to manage the on-site contractor safety program through appropriate management controls.

(2) Ability to identify hazards and have the capability to expend resources necessary to abate the hazards.

(3) Must have worked on similar types of projects that are equal to or exceed the scope of the project assigned with the same responsibilities.

(4) Shall, as a minimum, have the qualification required by “Roudou Anzen Eisei-hou, 15-jou”(the Labor and Safety Health Law, Japan).

1.4.2 Meetings:

1.4.2.1 Preconstruction Conference: The safety officer shall attend the preconstruction conference.

1.4.2.2 Meeting on Work Procedures:

a. Meet with Contracting Officer to discuss work procedures and safety precautions required by the APP. Ensure the participation of the contractor's superintendent, the quality control, and the CSP or CIH.

b. Meet with Contracting Officer to discuss work procedures and safety precautions required by the HASP. Ensure the participation of the contractor's superintendent, the quality control, and the CSP or CIH.

1.4.2.3 Weekly Safety Meetings: Hold weekly at the project site. Attach minutes showing contract title, signatures of attendees and a list of topics discussed to the QC Contractor Quality Control daily report.

1.4.2.4 Work Phase Meetings: The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection.

1.4.2.5 New Employee Indoctrination: New employees will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.4.3 Certifications:

1.4.3.1 Accident Prevention Plan(APP): Submit the APP at least 15 calendar days prior to start of work at the job site, following Appendix A of COE EM-385-1-1. Make the APP site specific. Notice To Proceed will be given after Government finds the APP acceptable.

1.4.3.2 Activity Hazard Analysis(AHA): Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. In accordance with contract quality control requirements each AHA will be reviewed during an on-site preparatory inspection.

1.4.3.3 Health and Safety Plan(HASP): Submit the HASP for projects involving the handling of hazardous materials and allow 15 calendar days for review by the Safety Program Administrator, Yokosuka, OICC Far East.

1.5 ACCIDENT PREVENTION PLAN (APP): Prepare the APP in accordance with the required and advisory provisions of COE EM-385-1-1 including Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan," and as modified herein.

1.5.1 Hazardous Material Use: Each hazardous material shall receive approval prior to bringing onto the job site or prior to any other use in connection with this contract. Material Safety Data Sheet (MSDS) shall be prepared in each hazardous material. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose government employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent government employees from being exposed to any hazardous condition that could result from the work or storage. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

1.6 ACTIVITY HAZARD ANALYSIS(AHA): Prepare for each phase of the work. As a minimum, define activity being performed, sequence of work, specific hazards anticipated, control measures to eliminate or reduce each hazard to acceptable levels, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall

arrest systems. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include excavation safeguarding requirements. The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection.

1.7 HEALTH AND SAFETY PLAN(HASP): Prepare as required by 29 CFR 1910.120 and COE EM-385-1-1.

1.7.1 Qualified Personnel: Retain a Certified Industrial Hygienist (CIH) or a Certified Safety Professional (CSP), to prepare the HASP, conduct activity hazard analyses, and prepare detailed plan for demolition, removal, and disposal of materials. Retain the CIH or CSP for duration of contract.

1.7.2 Contents: In addition to the requirements of COE EM-385-1-1, Table 28-1, the HASP must include:

a. Location, size, and details of control areas.

b. Location and details of decontamination systems.

c. Interface of trades involved in the construction.

d. Sequencing of work.

e. Disposal plan.

f. Sampling protocols.

g. Testing labs.

h. Protective equipment.

i. Pollution control.

j. Evidence of compliance with 29 CFR 1910.120 and 29 CFR 1926.65.

k. Training and certifications of CIH, CSP or other competent persons.

1.8 DRUG PREVENTION PROGRAM: Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employees either use illegal drugs or consume alcohol during work hours. Ensure there are no employees

under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine or saliva specimens and test injured employee's influence. A copy of the test shall be made available to the Contracting Officer upon request.

1.9 FALL HAZARD PROTECTION AND PREVENTION PROGRAM:

1.9.1 Scaffolds: Delineate the fall protection requirements necessary during the erection and dismantling operation of scaffolds used on the project in the Fall Protection and Prevention (FP&P) plan and activity hazard analysis for the phase of work.

1.9.2 Training: Institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, Contractor shall provide training for each employee who might be exposed to fall hazards.

1.10 DUTIES OF THE SAFETY OFFICER:

a. Ensure construction hazards are identified and corrected.

b. Maintain applicable safety reference material on the job site.

c. Maintain a log of safety inspections performed.

d. Attend the pre-construction conference as required.

e. Identify hazardous conditions and take corrective action. Failure to do so will result in a dismissal from the site, with a work stoppage pending approval of suitable replacement personnel.

1.11 DISPLAY OF SAFETY INFORMATION: Display the following information in clear view of the on-site construction personnel:

a. Map denoting the route to the nearest emergency care facility with emergency phone numbers.

b. AHA

1.12 SITE SAFETY REFERENCE MATERIALS: Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturers' manuals.

1.13 HIGH HAZARD WORK AND LONG DURATION: Work under this contract is potentially hazardous. Pursuant to contract clause "FAR 52.236-13, Accident Prevention, Alternate I," submit in writing additional

proposals for effecting accident prevention under hazardous conditions. Meet in conference with Contracting Officer to discuss and develop mutual understanding relative to the administration of the overall safety program.

1.14 EMERGENCY MEDICAL TREATMENT: Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment. However, if emergency medical care is rendered by Navy medical services, charges may be billed to Contractor at prevailing rates established in BUMED Instruction 6320.4 series. Reimbursement shall be made by Contractor to Naval Regional Medical Center Collection Agent upon receipt of monthly statement.

1.15 REPORTS:

1.15.1 Accident Reports:

a. For recordable occupational injuries and illnesses, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the Navy Contractor Significant Incident Report (CSIR) form and provide to the Contracting Officer within 24 hours of the accident. The Contracting Officer will provide a copy of the CSIR form.

b. For a weight handling equipment accident the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report form and provide to the Contracting Officer within 15 calendar days of the accident. The Contracting Officer will provide a blank copy of the WHE accident report form.

1.15.2 Notification: Notify the Contracting Officer as soon as practical, but not later than four hours, of any accident meeting the definition of Recordable Occupational Injuries or Illnesses or Significant Accidents. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; and brief description of accident (to include type of construction equipment used, PPE used, etc.).

1.15.3 Monthly Exposure Report: Monthly exposure reporting, to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor.

1.15.4 OSHA Citations and Violations: Provide the Contracting Officer with a copy of each OSHA citation, OSHA report and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 CONSTRUCTION: Comply with COE EM-385-1-1, NFPA 241, the accident prevention plan, the activity hazard analysis and other related submittals and activity fire and safety regulations.

3.1.1 Hazardous Material Exclusions: Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocynates, lead-based paint are prohibited. Exceptions to the use of any of the above excluded materials may be considered by Contracting Officer upon written request by Contractor.

3.1.2 Unforeseen Hazardous Material: The design should have identified materials such as PCB, lead paint, and friable and nonfriable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 15 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING: Contractors are required to apply for utility outages a minimum of 15 days in advance. As a minimum, the request should include the location of the outage, utilities being effected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved and prior to beginning work on the utility system requiring shut down,

the Contractor shall attend a pre-outage coordination meeting with the ROICC and the Station Utilities Department to review the scope of work and the lock out/tag out procedures for worker protection. No work will be performed on energized electrical equipment unless proven impassable. Working equipment "hot" must be considered the last option.

3.3 PERSONNEL PROTECTION:

3.3.1 Hazardous Noise: Provide hazardous noise signs, and hearing protection, wherever equipment and work procedures produce sound-pressure levels greater than 85 dBA steady state or 140 dBA impulse, regardless of the duration of the exposure.

3.3.2 Fall Protection: Enforce use of the fall protection device designated for each specific work activity in the FP&P plan and/or AHA all times when an employee is on a surface 1.8 m or more above lower levels. Personal fall arrest systems are required when working from an articulating or extendible boom, scissor lifts, swing stages, or suspended platform. Fall protection must comply with ANSI A10.14.

3.3.2.1 Personal Fall Arrest Device: Personal fall arrest device equipment, systems, subsystems, and components shall meet ANSI Z359.1, "Safety Requirements for Personal Fall Arrest Systems". Only a full-body harness with a shock absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest device. Body belts may only be used as a positioning device system such as steel reinforcing assembly and in conjunction with another fall arrest system. Harnesses shall have a fall arrest attachment, which is a connector, affixed to the body support (usually a D-ring) and specifically designated for attachment to the rest of the system. Only double locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber.

3.3.2.2 Existing Anchorage: Existing anchorages, used for attachment of personal fall arrest equipment, if to be used by the Contractor, shall be re-certified by the contractor's fall protection engineer (QP).

3.4 SCAFFOLDING: Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Stair towers or ladders built into scaffold systems in accordance with USACE EM 385-1-1 Appendix J are required for work platforms greater than 6 m in height. Contractor shall ensure that employees that are qualified perform scaffold erection. Do not use scaffold without the capability of supporting at least four times the

maximum intended load or without appropriate fall protection as delineated in the accepted fall protection plan. Minimum platform size shall be based on the platform not being greater in height than three times the dimension of the smallest width dimension for rolling scaffold. Some Baker type scaffolding has been found not to meet these requirements. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. Special care shall be given to ensure scaffold systems are not overloaded. Outrigger brackets used to extend scaffold platforms on self supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base.

3.5 EQUIPMENT:

3.5.1 Material Handling Equipment:

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturers printed instructions.

3.6 EXCAVATIONS: The competent person for excavation performed as a result of contract work shall be on-site when work is being performed in excavation, and shall inspect excavations prior to entry by workers. The competent person must evaluate for all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. Prior to digging the appropriate digging permit must be obtained. All underground utilities in the work area must be positively identified by a utility locating service and coordinated with Station Utility Departments. The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within 1.0 m of the underground system. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30 m if parallel within 1.5 m of the excavation. Trench and shoring systems must be identified in the accepted safety plan and activity hazard analysis. Extreme care must be used when excavating near direct burial electric underground cables. Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be

maintained when the digging chain is operating. Documentation of the training shall be kept on file in the project site office or trailer.

3.7 ELECTRICAL:

3.7.1 Conduct of Electrical Work: Underground electrical spaces shall be certified safe for entry before entering to conduct work. Cable intended to be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cutting remotely. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. The entrance to all buildings, rooms, or enclosures containing exposed live parts or exposed conductors operating at over 600 volts, nominal, shall be kept locked unless such entrances are under the observation of a qualified person at all times, and where the voltage exceeds 600 volts, nominal, permanent and conspicuous warning signs shall be provided, reading as follows: DANGER-HIGH VOLTAGE-KEEP OUT. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. Insulating blankets, hearing protection, and switching suits may be required, depending on the specific job and as delineated in the Contractor AHA.

3.8 HOUSEKEEPING

3.8.1 Clean-up: All debris in work areas shall be cleaned up daily or more frequently as necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

3.8.2 Dust Control: In addition to the dust control measures required elsewhere in the contract documents dry cutting of brick or masonry shall be prohibited. Wet cutting must address control of water run off.

3.9 ACCIDENT SCENE PRESERVATION: For serious accidents, and accidents involving weight handling equipment, ensure the accident

site is secured and evidence is protected remaining undisturbed until released by the Contracting Officer.

3.10 FIELD QUALITY CONTROL

3.10.1 Inspections: Include safety inspection as a part of the daily Quality Control inspections required in Section 01450, “Quality Control”.

*** END OF SECTION ***

SECTION 01560

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below forms a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Law (JL):

No.132	The Environmental Pollution Prevention Act.
No. 97	The Air Pollution Control Act (Clean Air Act)
No.138	The Water Pollution Prevention Act.
No.136	The Sea Pollution Prevention Act.
No.139	The Agricultural Soil Pollution Prevention Act.
No. 98	The Noise Control Act.
No. 64	The Oscillation (Vibration) Control Act.
No.137	The Waste Disposal and Cleaning Act.
No. 85	The National Environment Conservation Act.

1.1.2 Kanagawa Prefectural Office's Publication:

"Kanagawa-ken Kohgai Bohshi Jyorei Kitei Shu (Heisei 4 nendo)" (Handbook for Pollution Control Laws and Official Regulations)

1.1.3 Notification of the Environment Agency, Japan:

No. 13	Detection Method for the Presence of Toxicity

1.1.4 U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation:

29 CFR 1910.94	Occupational Health and Environmental Control

1.1.5 DOD Japanese Environmental Governing Standards (JEGS), accomplished by US Forces Japan, American Embassy, and Japanese Government Agencies, Oct 2001.

1.2 DEFINITIONS:

1.2.1 Sediment: Soil and other debris that have eroded and transported by runoff water or wind.

1.2.2 Solid Waste: Rubbish, debris, garbage, and other discarded solid materials, except hazardous waste as defined in paragraph entitled, "Hazardous Waste," resulting from industrial, commercial, and agricultural operations, and from community activities.

1.2.3 Rubbish: Combustible and noncombustible wastes such as paper, boxes, glass, crockery, metal, lumber, cans, and bones.

1.2.4 Debris: Combustible and noncombustible wastes such as ashes and waste materials resulting from construction or maintenance and repair work, leaves, and tree trimmings.

1.2.5 Chemical Waste: This includes salts, acids, alkalies, herbicides, pesticides, and organic chemicals.

1.2.6 Sanitary Wastes:

1.2.6.1 Sewage: Waste characterized as domestic sanitary sewage.

1.2.6.2 Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

1.2.7 Hazardous Waste: Hazardous substances as defined in JEGS and JL No.137 as defined.

1.2.8 Oily Waste: Petroleum products and bituminous materials.

1.3 SUBMITTALS: Submit the following in accordance with Section 01330, “Submittal Procedures.”

1.3.1 Environmental Protection Plan: Submit four copies of the proposed environmental protection plan. Environmental protection plan includes all permits and disposal documentation regarding work performed under this contract, and protection plan for hazardous material spill response.

1.3.2 Solid Waste Disposal Permit: Submit one copy of Japanese local permit and license showing such agencies' approval of the disposal plan.

1.3.3 Disposal Permit for Hazardous Waste: Submit a copy of the applicable Japanese local permits and licenses for transportation, treatment, storage and disposal of hazardous waste by permitted facilities.

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS: Provide and maintain during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with the regulations, listed under paragraph "References", pertaining to the environment. In the event of conflict among any of the cited

regulations the most stringent shall govern.

1.4.1 Environmental Protection Plan: Five days after the award of contract, the Contractor shall meet with the Contracting Officer to discuss the proposed environmental protection plan and to develop mutual understanding relative to the details of environmental protection, including measures for protecting natural resources, required reports, and other measures to be taken.

1.4.1.1 Fourteen days after the meeting, the Contractor shall submit to the Contracting Officer the proposed environment plan for further discussion, review, and approval.

1.4.1.2 Commencement of the Work: As directed by the Contracting Officer, following approval.

1.4.2 Preconstruction Survey: Perform a preconstruction survey of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site.

1.5 PROHIBITED MATERIALS: Prohibit the following materials to be used.

a. Materials containing asbestos.
b. Drinking water components or fixtures that contains greater than 8% lead (pipes, fittings, and fixtures) or 0.2% lead (flux and solders).
c. Paint that contains more than 0.06% lead by weight in the total non-volatile content of liquid paint.
d. Materials containing PCBs (1 ppm and above).

PART 2 - EXECUTION

2.1 PROTECTION OF NATURAL RESOURCES: Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of the work. Confine construction activities to within the limits of the indicated or specified.

2.1.1 Land Resources: Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages, unless authorized by the Contracting Officer. Where such use of attach ropes, cables, or guys is authorized, the Contractor shall be responsible for any resultant damage.

2.1.1.1 Protection: Protect existing trees which are to remain and

which may be injured, bruised, defaced, or otherwise damaged by construction operation. Remove displaced rocks from uncleared areas. By approved excavation, remove trees with 30 percent or more of their root systems destroyed.

2.1.1.2 Replacement: Remove plants, trees, and other landscape features scarred or damaged by equipment operations, and replace with equivalent, undamaged trees and landscape features. Obtain the Contracting Officer's approval before replacement.

2.1.1.3 Temporary Construction: Remove traces of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other signs of construction. Grade temporary roads, parking areas, and similar temporarily used areas to conform with surrounding contours.

2.2 DUST CONTROL: Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet sweeping, or wet power brooming. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

2.3 HAZARDOUS WASTE DISPOSAL: Dispose of hazardous waste in accordance with the laws, rules, and local regulations listed under paragraphs "Japanese Laws" through JEGS.

*** END OF SECTION ***

SECTION 01801

SAFETY REQUIREMENTS FOR CRANE OPERATION

PART 1 - GENERAL

1.1 SUBMITTALS: Submit the following items as specified in Section 01330, “Submittal Procedures”.

a. SD-08, Notification for entering with crane.
b. SD-13, Certification for equipment
c. SD-13, Certification for operators
d. Accident reports.

1.2 RULES AND REQUIREMENTS: Any crane entering any Naval activity in Japan shall conform to EM-385-1-1, P-307, Prefectural Labor Standards Office rules, and requirements concerning the safe operating conditions and safe operations of that crane.

1.3 NOTIFICATION: The Contractor with cranes entering the activity shall notify the ROICC in written, using the crane entry form provided by the ROICC, at least 48 hours prior to entry.

1.4 CERTIFICATIONS FOR EQUIPEMNT: The Contractor shall certify that the crane and rigging gear conform to the GOJ Safety Standards using the blank form ("Contractor Operation Checklist") attached at the end of this section. The Contractor shall also certify that all crane operators working on the Naval activity have been trained not to ignore safety devices (such as anti-two blocking devices) during lift operations and the certifications be posted on the crane.

1.5 CERTIFICATIONS FOR OPERATORS: The Contractor shall certify the crane operators are qualified and trained for the operation of the crane using the blank form ("Certification of Compliance") attached at the end of this section. The Contracting Officers will perform on-site-spot checks to assure that crane safety is observed and any unsafe conditions or actions will cause the stoppage of the crane work.

1.6 DOCUMENTATION: The prime Contractor shall have documentation for the testing and operating exam in order to make it valid. The training and operating exam can have been done by Japanese Labor Standards Bureau or designated training

agency. The key is to be able to show us the training outline, qualifications of the trainer, the test questions given and what the operational exam consisted of. After completion of the training, etc, the operator shall be given a license or certificate of completion. Retaining shall be done after any accident has occurred and refresher training at least every 3 years.

1.7 ACCIDENT:

1.7.1 Notifying: The Contractor shall notify the Contracting Officer of a crane accident as soon as practical after the accident has occurred (no longer than two hours). The accident scene shall be secured and evidence protected until released by the Contracting Officer. Crane operations shall not be continued until a cause is determined and corrective actions are in place to the satisfaction of the Contracting Officer.

1.7.2 Reports: Within 30 calendar days, the Contractor shall provide a weight handling accident report using form ("WEIGHT HANDLING EQUIPMENT ACCIDENT REPORT" with instructions) ,attached at the end of this section, consisting of a summary of circumstances, an explanation of cause, photographs, and corrective actions taken.

PART 2 and PART 3

Not used.

*** END OF SECTION ***

CERTIFICATE OF COMPLIANCE

This certificate shall be signed by an official of the company that provides cranes for any application under this contract. Post a completed certificate on each crane brought onto Navy property.

PRIME CONTRACTOR /PHONE:	**CONTRACT NUMBER:**
CRANE SUPPLIER/PHONE: **(if different from prime contractor)**	**CRANE NUMBER:** **(i.e., ID number)**
CRANE MANUFACTURER/TYPE/CAPACITY:	
CRANE OPERATOR'S NAME(S):	

I certify that:

1. The above noted crane conforms to applicable OSHA regulations (host country regulations for naval activities in foreign countries). The following regulations apply: EM 385-1-1, SECTION 16.C, Appendix G, H and I, Where more stringent crane standards are set forth, the more stringent standards shall apply.

2. That the operator(s) noted above have been trained, tested (orally or written and practical operating examination) and are qualified for the operation of the above noted crane. I have included that the operator must have been tested, either orally or written, and that a practical operating exam has been administered. These requirements need to be done for each different type, manufacturer and size of crane.

3. That the operators noted above have been trained not to bypass safety devices during lifting operations.

COMPANY OFFICIAL SIGNATURE:	**DATE:**

POST ON CRANE

(IN CAB OR VEHICLE)

CONTRACTOR CRANE OPERATION CHECKLIST

		YES	NO
1.	Does the operator know the weight of the load to be lifted?		
2.	Is the load to be lifted within the crane manufacturer's rated capacity in its present configuration?		
3.	Is the crane level and on firm ground?		
4.	Are outriggers required?		
5.	If so, are outriggers fully extended and down, and the crane load off the wheels?		
6.	If blocking is required, is the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad?		
7.	If outriggers are not used, is the crane rated for on-rubber lifts by the manufacturer's load chart?		
8.	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage?		
9.	Has the hook been centered over the load in such a manner to minimize swing?		
10.	Is the load well secured and balanced in the sling or lifting device before it is lifted more than a few inches?		
11.	Is the lift and swing path clear of obstructions?		
12.	If rotation of the load being lifted is hazardous, is a tag or restraint line being used?		
13.	Are personnel prevented from standing or passing under a suspended load?		
14.	Is the crane operator's attention diverted?		
15.	Are proper signals being used at all times?		
16.	Do the operations ensure that side loading is prohibited?		
17.	Are personnel prevented from riding on a load?		
18.	Are start and stop motions in a smooth fluid motion (no sudden acceleration or deceleration)?		
19.	If the load is to be suspended and left unattended, have prior planning and written procedures been completed?		
20.	If operating near electric power lines, are the rules and guidelines understood and adhered to?		
21.	Is the lift a critical lift?		
22.	If so, are all regulations understood and check-off sheets initialed and signed off?		
23.	Is the operator qualified to operate crane? Viewed documentation?		

Contractor:	**Subcontractor:**
Location:	**Date:**

Notes:

WEIGHT HANDLING EQUIPMENT ACCIDENT REPORT Report Date:

From:

To: Navy Crane Center, NORTHNAVFACENGCOM
10 Industrial Hwy; MS #82
Lester, PA 19113-2090
FAX (610) 595-0748

UIC:

Activity: Report No:

Crane No: Cat: Accident Date Time: hrs

SPS: GPS: Crane Type: Crane Manufacturer:

Location: Weather:

Crane Capacity: Hook Capacity: Weight of Load on Hook:

NAVSAFECEN Reportable YES NO Damage Cost Estimate Only if>$10,000

Accident Type:

☐ Personal Injury ☐ Overload ☐ Derail ☐ Damaged Rigging Gear

☐ Load Collision ☐ Two Blocked ☐ Dropped Load ☐ Damaged Crane

☐ Crane Collision ☐ Damaged Load ☐ Other _____ Specify

Cause of Accident:

☐ Improper Operation ☐ Equipment Failure ☐ Inadequate Visibility

☐ Improper Rigging ☐ Switch Alignment ☐ Inadequate Communication

☐ Track Condition ☐ Procedural Failure ☐ Other _____ Specify

Chargeable To:

☐ Track Walker ☐ Rigger ☐ Operator

☐ Maintenance ☐ Management/Supervision ☐ Other _____ Specify

Crane Function

☐ Travel ☐ Hoist ☐ Rotate ☐ Luffing ☐ Lower ☐ Telescoping

Is this accident indicative of a recurring problem? ☐ Yes ☐ No

If Yes, list Accident Report Nos.: _____

ATTACH CONPLETE AND CONCISE SITUATION SESCRIPTION AND CORRECTIVE /PRECENTIVE ACTIONS TAKEN AS ENCLOSURE (1). Includes probable cause and contributing factors. Assess damages And define responsibility. For equipment malfunction or failure include specific description of the Component and the resulting effect or problem caused by the malfunction or failure. List Corrective/ Preventive Actions assigned and responsible codes

Preparer's Signature	Code	Date

CONCURRENCES (Include Signature, Code, and date)

CERTIFIYING OFFICIAL

WEIGHT HANDLING EQUIPMENT ACCIDENT REPORT INSTRUCTIONS

Block 1 - Report Date: The date the accident report is completed.

Block 2 – From: The naval activity that owns the crane and UIC number.

Block 3 – Activity: The naval activity where the accident took place.

Block 4 – Report No.: The acitivity assigned accident number (e.g., 95-001).

Block 5 – Crane No.: The activity assigned crane number (e.g., PC-5).

Block 6 – Category: Identify category of crane (i.e., 1,2,or 3).

Block 7 – Accident Date: The date the accident occurred (month/day/year).

Block 8 – Time: The time (24 hour clock) the accident occurred (e.g., 1300).

Block 9 – Category of Service: Special purpose service (SPS) or general purpose service (GPS).

Block 10 – Crane Type: The type of crane involved in the accident (e.g., mobile, bridge).

Block 11 – Crane Manufacturer: The manufacturer of the crane (e.g., Dravo, Grove, P&H).

Block 12 – Location: The detailed location where the accident took place (e.g., building 213, dry dock 5).

Block 13 – Weather: The weather conditions at time of accident (e.g., wind, rain, cold).

Block 14 – Crane Capacity: The certified capacity of the crane (e.g., 60 tons).

Block 15 – Hook Capacity: The capacity of the hook involved in the accident at the maximum radius of the operation.

Block 16 – Weight of Load on Hook: If applicable, the weight of the load on the hook.

Block 17 – NAVSAFECEN Reportable: Check yes or no. See OPNAVINST 5100.23 for more information.

Block 18 – Dmg Cost Estimate: Estimate total cost of damage resulting from the accident if greater than (>)$10,000.

Block 19 – Accident Type: Check all that apply.

Block 20 – Cause of Accident: Check all that apply.

Block 21 – Chargeable to: Check all that apply.

Block 22 – Crane Function: Check the function(s) in operation at time of accident. Check all that apply.

Block 23 – Is this a recurring problem?: Check yes or no. Identify any other similar accidents.

Block 24 – Situation Description/Corrective Actions: Self-explanatory.

Block 25 – Concurrence: Signatures of activity personnel verifying the accident report.

DIVISION 2

SITE WORK

SECTION 02220

SITE DEMOLITION

PART 1 - GENERAL

1.1 REFERENCES: The following publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Department of Defense Japan Environmental Governing Standard issued by Headquarters, U.S. Forces Japan,(JEGS), October 2001, Version 1.1(Revised: June 2002).

1.2 SUBMITTALS: Submit the following in accordance with Section 01330, "Submittal Procedures."

1.2.1 SD-08, Statements:

a. Demolition Plan: Submit proposed demolition and removal procedures to the Contracting Officer for approval before work is started.

1.2.2 SD-13, Certificates:

a. Disposal manifest

1.2.3 SD-18, Records: Submit waste identification documentation in accordance with JEGS and GOJ.

a. Waste identification documentation

1.3 GENERAL REQUIREMENTS: Do not begin demolition until authorization is received from the Contracting Officer. Remove rubbish and debris from the project site; do not allow accumulations around the work area. Store materials that cannot be removed daily in areas specified by the Contracting Officer.

1.4 REGULATORY AND SAFETY REQUIREMENTS: Comply with federal, GOJ, prefectural, local, and Japan Environmental Governing Standards (JEGS) regarding hauling and disposal regulations.

1.5 DUST AND DEBRIS CONTROL: Prevent the spread of dust and debris to occupied portions of the work site and avoid the creation

of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution. Vacuum and dust the work area daily.

1.6 PROTECTION:

1.6.1 Traffic Control Signs: Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Contracting Officer prior to beginning such work.

1.6.2 Existing Work: Protect existing work which is to remain in place, be reused, or remain the property of the Government. Repair items which are to remain and which are damaged during performance of the work to their original condition, or replace with new. Do not overload structural elements. Provide new supports and reinforcement for existing construction weakened by demolition or removal work. Repairs, reinforcement, or structural replacement shall have Contracting Officer approval.

1.6.3 Weather Protection: For portions of the building to remain, protect building interior and materials and equipment from the weather at all times. Where removal of existing roofing is necessary to accomplish work, have materials and workmen ready to provide adequate and temporary covering of exposed areas so as to ensure effectiveness and to prevent displacement.

1.6.4 Facilities: Protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities.

1.7 BURNING: Burning will not be permitted.

1.8 RELOCATIONS: Perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Repair items to be relocated which are damaged or replace damaged items with new undamaged items as approved by the Contracting Officer.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 EXISTING FACILITIES TO BE REMOVED: As indicated on drawing.

3.1.1 Removal of Concrete: Saw concrete along straight lines through the whole section without breaker or chisel, in order to prevent the other surfaces from being cracked by the concrete removal work, as indicated on drawing.

3.1.2 Removal and Disposal of Existing Asbestos-containing Material: Existing vinyl tile as indicated contains asbestos. Removal and disposal of existing asbestos-containing materials as specified in Section 13281, "Engineering Control of Asbestos Containing Materials".

3.2 DISPOSITION OF MATERIAL:

3.2.1 Title to Materials: Except where specified, all materials and equipment removed(except the materials and equipment to be reused, salvaged, and scrap metals) shall become the property of the Contractor and shall be removed from Government property. Title to materials resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Contracting Officer of the Contractor's demolition and removal procedures, and authorization by the Contracting Officer to begin demolition. The Government will not be responsible for the condition or loss of, or damage to, such property after notice to proceed. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

3.2.2 Scrap Metals: Scrap metals generated in the performance of this job shall remain the property of the Government unless indicated, and deliver to the recycling yard "Facility 1810" or collected at the job site neatly on pallets pending pick up. Contact QRP Scrap Yard at 243-5806 for pre-inspection and collection before delivering the scrap metal. Scrap metals include pipes, valves, radiators, ducts, conduits, electrical cables, metal siding, metal roofing, and structural steels. Do not include lead-based paint, any thermal insulation, or PCB electrical cables in scrap metals.

3.3 CLEANUP:

3.3.1 Debris and Rubbish: Remove and transport debris and rubbish in a manner that will prevent spillage on pavements, streets or adjacent areas.

*** END OF SECTION ***

SECTION 02302

EXCAVATION, BACKFILLING, AND COMPACTING FOR UTILITIES

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standards (JIS):

A 1214-01	Test Method for Soil Density by the Sand Replacement Method
A 5001-95	Crushed Stone for Rode Construction

1.2 DESCRIPTION: This section includes requirements for excavating, preparation of pipe-laying surface, pipe bedding, backfilling and compaction for the piping systems furnished and installed under Section 02530 “Exterior Sanitary Sewer Piping.”

1.3 DEFINITIONS:

1.3.1 Backfill: Material used in refilling a trench or their excavation.

1.3.2 Compaction: Any method of mechanically stabilizing a material by increasing its density at a controlled moisture condition. “Degree of Compaction” is expressed as a percentage of the maximum density obtained by the test procedure described in JIS A 1214 for general soil types, abbreviated in this specification as “90 percent JIS A 1214 maximum density.”

1.3.3 Hard Material: Weathered rock, dense consolidated deposits, or conglomerate materials which are not included in the definition of “rock” but which usually require the use of heavy excavation equipment, ripper teeth, or jack hammers for removal.

1.3.4 Lift: A layer or course of soil placed on top of unprepared subgrade or a previously prepared or placed soil in a fill or backfill.

1.3.5 Rock: Solid homogenous interlocking crystalline material with firmly cemented, laminated, or foliated masses or conglomerate deposits, neither of which can be removed without systematic drilling and blasting, drilling and the use of expansion jacks or feather

wedges, or the use of backhoe-mounted pneumatic hole punchers or rock breakers; also large boulders, buried masonry, or concrete other than pavement exceeding 4 cubic meter in volume. Removal of "hard material" will not be considered rock excavation because of intermittent drilling and blasting that is performed merely to increase production.

1.3.6 Unyielding Materials: Rock or soil with cobbles in the trench bottom requiring a covering of finer grain material or special bedding to avoid bridging in the pipe.

1.3.7 Unsatisfactory Material: Soil or other material identified as having insufficient strength or stability to carry intended loads on trench backfills without excessive consolidation or loss of stability. Also backfill material which contains refuse, frozen material, large rocks, debris, and other material which could damage the cause the backfill not to compact.

1.3.8 Unstable Material: Material in the trench bottom which lacks firmness to maintain alignment and prevent joints from separating in the appurtenance structure during backfilling. This may be material otherwise identified as satisfactory which has been disturbed or saturated.

1.4 DELIVERY AND STORAGE: Deliver and store materials in a manner to prevent contamination, segregation, freezing, and other damage.

1.5 CRITERIA FOR BIDDING: Base bids on the following criteria:

a. Surface elevations are as indicated.

b. No pipes or other man-made obstructions, except those indicated, will be encountered.

c. Rock or hard material as defined in paragraph entitled “Definitions” will not be encountered.

1.6 PROTECTION:

1.6.1 Dewatering Plan: Base on site surface and subsurface conditions, available soil and hydrological data.

1.6.2 Utilities: Movement of construction machinery and equipment over pipes during construction shall be at the Contractor's risk. Excavation made with power-driven heavy equipment is not permitted within 60 cm of any known government-owned utility or subsurface construction. For work immediately adjacent to or for excavations

exposing a utility or other buried obstruction, use hand or light equipment excavation. Start hand or light equipment excavation on each side of the indicated obstruction and continue until the obstruction is uncovered or until clearance for the new grade is assured. Support uncovered lines or other existing work affected by the contract excavation until approval for backfill is granted by the Contracting Officer. Report damage to utility lines or subsurface construction immediately to the Contracting Officer.

1.6.3 Structures and Surfaces: Protect newly backfilled areas and adjacent structures, slopes, or grades from traffic, erosion settlement, or any other damage. Repair and reestablish damaged or eroded grades and slopes and restore surface construction prior to acceptance.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS: Provide soil materials free of debris, roots, wood, scrap material, vegetable matter, refuse, soft unsound particles, ice, or other deleterious and objectionable materials.

2.1.1 Sand: Yamazuna.

2.1.2 Aggregate:

2.1.2.1 Base Course for Asphalt Concrete Paving: As specified under Section 02500 “Asphalt Pavement”.

2.1.2.2 Base Course for Cast-in Place Concrete Works: JIS A 5001, C-40 or recycled crushed stone, RC-40.

PART 3 - EXECUTION

3.1 PROTECTION:

3.1.1 Shoring and Sheeting: Provide shoring and sheeting. In addition to Section 25 A and B of COE EM-385-1-1 include provisions in the shoring and sheeting plan that will accomplish the following:

a. Prevent undermining of pavements, foundations and slabs.

b. Prevent slippage or movement in banks or slopes adjacent to the excavation.

3.2 SURFACE PREPARATION:

3.2.1 Cutting Asphalt Concrete Paving: As specified under Section 02500 “Asphalt Pavement”.

3.3 EXCAVATION: Keep excavations free from water while construction is in progress. Notify the Contracting Officer immediately in writing if it becomes necessary to dewater, and to remove rock or hard, unstable, or otherwise unsatisfactory material to a depth greater than indicated. Excavate ledge rock, boulders, and other unyielding material to an overdepth at least 15 cm below the bottom of the trench unless otherwise indicated or specified. Trench dimensions shall be as indicated.

3.3.1 Refill: Defined as material placed in excavation to correct overcut in depth.

3.4 BEDDING: Shall be of the materials and depths as indicated for utility line. Place bedding in 15-cm-maximum loose lifts for utility line and place bedding material as indicated.

3.5 BACKFILLING:

3.5.1 Filling and Backfilling for Utilities: Construct backfill in two operations (initial and final) specified in this section. Place initial backfill in 15-cm-maximum loose lifts to 30 cm above pipe. Ensure that initially placed material is tamped firmly under pipe haunches. Bring up evenly on each side of the trench. Place the remainder of the backfill in 23-cm-maximum loose lifts unless otherwise specified. Compact each loose lift as specified in paragraph “Compaction” before placing the next lift. Do not backfill in freezing weather or where the material in the trench is already frozen or is muddy, except as authorized.

3.5.2 Filling and Backfilling Adjacent to Structures: Place backfill adjacent to structures and compact to prevent wedging action or eccentric loading upon or against the structures. Do not use equipment for backfilling operations or for the formation of embankments against structures that will overload the structure.

3.6 COMPACTION: Use hand-operated, plate-type, vibratory, or other suitable hand tampers in areas not accessible to larger rollers or compactors. Compact material in accordance with the following unless otherwise specified. If necessary, alter, change, or modify selected equipment or compaction methods to meet specified compaction requirements.

3.6.1 Compaction of Material for Subcuts or Overexcavations: In rock, compact to 95 percent of JIS A 1214, maximum density. In stable soils, compact to 90 percent of JIS A 1214 density.

3.6.2 Compaction of Pipe Bedding: In rock, compact to 95 percent and in soil, compact to 90 percent of JIS A 1214 density.

3.6.3 Compaction of Backfill: Where bedding and backfill are the same material, compact initial backfill material surrounding pipe to the density of the bedding.

3.6.4 Compaction of Sub-base Course: Compact to 90 percent of JIS A 1214 density.

3.6.5 Compaction of Base Course: Compact to 95 percent of JIS A 1214 density.

3.7 FINISH OPERATIONS:

3.7.1 Grading: Finish to grades indicated within 30 mm (one-tenth of a foot).

3.7.2 Asphalt Pavement: Provide asphalt pavement as indicated and in accordance with requirements specified in Section 02500 “Asphalt Pavement.”

*** END OF SECTION ***

SECTION 02500

ASPHALT CONCRETE PAVEMENT

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standards (JIS):

A 5001-95	Crushed Stone for Rode Construction
K 2207-90	Petroleum Asphalt
K 2208-93	Emulsified Asphalt

1.1.2 American National Standards Institute (ANSI) Publications:

A10.17-1975	Safe Operating Practice for Asphalt Pavement Construction

1.1.3 Japan Road Association (JRA) Publications:

Manual for Design and Construction of Asphalt

1.2 DELIVERY AND STORAGE: Inspect materials delivered to the site for damage and store with a minimum of handling. Store aggregates in such a manner as to prevent segregation, contamination, or intermixing of the different aggregate sizes.

1.3 TRAFFIC CONTROL: Vehicular traffic, including heavy equipment, shall not be permitted on the pavement until the surface temperature has cooled to at least 48 degrees C. Surface temperature shall be measured by approved surface thermometers or other satisfactory methods.

1.4 OPERATIONAL SAFETY AND HEALTH GUIDELINES: In addition to the requirements of the Contract Clauses, conduct mixing and delivery of bituminous materials and paving operations in accordance with ANSI A10.17.

1.5 WEATHER LIMITATIONS: Place the bituminous mixture only during dry weather and on dry surfaces. Place courses only when the surface temperature of the underlying course is greater than 7 degrees C for course thickness greater than 25 mm and 12 degrees C for course thicknesses 25 mm or less.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Bituminous Prime and Tack Coats: JIS K 2208, type PK-3 for prime coat, and type PK-4 for tack coat.

2.1.2 Asphalt Concrete Wearing Course (Bituminous Concrete): Column 2.(13) dense graded asphalt concrete of table 4.3 of JRA "Manual for Design and Construction of Asphalt Pavement."

2.1.2.1 Aggregates: Aggregates for bituminous course shall consist of crushed stone or uncrushed gravel, and sand, as required. The portion of these materials retained on the 4.76 mm sieve shall be known as coarse aggregate; the portion passing the 4.76 mm sieve and retained on the 74 mm sieve, as fine aggregate; and the portion passing the 74 mm sieve, as mineral filler.

2.1.2.2 Asphalt: JIS K 2207, penetration grade 60-80 or 80-100.

2.1.3 Base course: JIS A 5001, M-30.

2.1.4 Sub-base Course: JIS A 5001, C-40 or JRA recycled crushed stone, RC-40.

PART 3 - EXECUTION

3.1 CONSTRUCTION: JRA "Manual for Design and Construction of Asphalt Pavement" and drawing.

3.1.1 Backfilling and Tamping: Replace and compact soil materials under pavement in layers.

3.1.2 Bituminous Surface: Provide a aggregate base course. Apply a prime coat on the base course at the rate of 1.2 liters residual asphalt per square meter. Paint the cut edge of bituminous pavement with a bituminous tack coat and provide bituminous concrete pavement.

3.1.3 Finished Grades: The finish grades of each course placed shall not vary from the finish elevations. The Contractor shall correct deficient paved areas by removing existing work and replacing with new materials meeting the specifications without additional cost

to the Government. Skin patching for correcting low areas will not be permitted.

*** END OF SECTION ***

SECTION 02530

EXTERIOR SANITARY SEWAGE PIPING

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standards (JIS):

A 5372-00	Precast Reinforced Concrete Products *Pipe, U-Ditch, Pile, Curb, Manhole, Trough
K 6353-97	Rubber Goods for Water Works

1.2 GENERAL REQUIREMENTS: Section 15050 "Basic Mechanical Materials and Methods" also applies to this section except as specified otherwise.

1.2.1 Sewage System: The system shall include pipeline, manhole and catch basin.

1.3 DELIVERY, STORAGE, AND HANDLING OF MATERIALS:

1.3.1 Delivery and Storage:

1.3.1.1 Piping: Inspect materials delivered to site for damage; store with minimum of handling. Store materials on site in enclosures or under protective coverings. Do not store materials directly on the ground. Keep inside of pipes and fittings free of dirt and debris.

1.3.1.2 Precast Concrete Manholes: Handle brick, concrete masonry units, and precast manhole sections with care to avoid chipping and breakage; store as directed. Protect masonry materials and precast concrete from contact with the earth and exposure to weather; keep dry until used. Use of masonry or precast concrete containing frost will not be permitted.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Sewer Pipe:

2.1.1.1 Concrete Piping: Reinforced concrete pipe, JIS A 5372, ordinary group, class 1, type B. Gaskets and pipe ends for rubber gasket joint shall conform to JIS K 6353, type 2, No. 3, "Otsu". Gaskets shall be suitable for use with sewage.

2.2 CATCH BASIN: Sizes, and shapes of the catch basin shall be as indicated. Surfaces of catch basins shall receive a smooth finish. Cast-in place concrete shall be as specified in Section 03300, "Cast-in-Place Concrete".

2.2.1 Catch Basin Cover: Cast iron cover and frame, T-20 type, as indicated.

2.3 CONCRETE MANHOLE: Pre-cast concrete manhole walls shall conform to JIS A 5372, 600C and 900A as indicated. Cast-in place concrete materials shall be as specified in section 03300 "Cast-in-Place Concrete". Make inverts in cast-in-place concrete with a semi-circular bottom conforming to the inside contour of the adjacent sewer sections. Shape inverts accurately and give them a smooth finish. For changes in direction of the sewer and entering branches into the manhole, make a circular curve in the manhole invert of as large a radius as manhole size will permit.

2.3.1 Manhole Cover: Cast iron manhole cover and frame, T-20 type, as indicated.

PART 3 - EXECUTION

3.1 INSTALLATION OF PIPELINES AND APPURTENANT CONSTRUCTION:

3.1.1 General Requirements for Installation of Pipelines: These requirements shall apply to all pipeline installation.

3.1.1.1 Pipe Laying and Jointing: Each pipe and fitting will be inspected before and after installation and those found defective will be rejected. Provide proper facilities for lowering sections of pipe into trenches. At the end of each day's work, close open ends of pipe temporarily with wood blocks or bulkheads.

3.1.1.2 Connections to Existing Lines: Make connections to existing lines in an approved manner. Conduct temporary bypass hose so that there is no interruption of service on existing line.

3.2 CONCRETE WORK: As specified in Section 03300 “Cast-in-place concrete”.

3.3 FIELD TESTS AND INSPECTIONS:

3.3.1 General: The Contractor shall perform all field tests and provide all labor, equipment, and incidentals required for testing, except that water and electric power needed for field tests will be furnished as set forth in Division 1. The Contractor shall be able to produce evidence, when required, that any item of work has been constructed properly in accordance with the drawings and specifications.

3.3.2 Test Procedure:

3.3.2.1 Non-Pressure Lines: Check each straight run of pipeline for gross deficiencies by holding a light in a catch basin; it shall show a practically full circle of light through the pipeline when viewed from the adjoining end of line.

*** END OF SECTION ***

DIVISION 3

CONCRETE

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 5-97	Reinforced Concrete Work

1.1.2 Japanese Industrial Standards (JIS):

A 5308-98	Ready-Mixed Concrete
G 3112-87	Steel Bars for Concrete Reinforcement
G 3551-00	Welded Steel Wire and Bar Fabrics

1.1.3 Japanese Agricultural Standard (JAS) Association Publication:

932-83	Plywood for Forms Used in Concrete Work

1.2 DELIVERY, STORAGE, AND HANDLING: In accordance with JASS 5.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Concrete: JASS 5 and JIS A 5308. Provide concrete aggregate of maximum size 20 mm. Provide 4 to 5 percent air entrainment for concrete exposed to the weather. Accomplish air entrainment using an air-entraining admixture. The maximum chloride content shall be between 0.3 kg/m^3 through 0.6 kg/m^3. Slump shall be 15 cm. 28-day compressive strength of concrete shall be as 21 N/mm^2, except cast-in place manhole concrete. 28-day compressive strength of cast-in place manhole concrete shall be as 18 N/mm^2.

2.1.1.1 Adhesive: Epoxy resin type. A two component epoxy resin-base binder mixed with hardener, in accordance with the concrete manufacturer.

2.1.2 Materials for Forms: JAS "Plywood for Forms Used in Concrete Work."

2.1.3 Reinforcing Bars: JIS G 3112, Type SD295A , as indicated on drawing.

2.1.4 Welded Wire Fabric: JIS G 3551, as indicated. Provide flat sheets of welded wire fabric for slabs and toppings.

2.1.5 Expansion Anchor: Tubular, multi-slit, internal thread, with stud bolt having a head of the expander shape, as indicated on drawing. Do not use plastic material.

PART 3 - EXECUTION

3.1 WORK PROCEDURE: In accordance with JASS 5 and the each manufacturer’s instruction.

*** END OF SECTION ***

DIVISION 5

METALS

SECTION 05500

METAL FABRICATIONS

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 6-96	Steel Work

1.1.2 Japanese Industrial Standards (JIS):

G 3101-95	Rolled Steel for General Structure
G 3191-66	Shape, Dimension, Weight and Tolerance for Hot Rolled Steel Bar and Bar-in-coil
G 3192-00	Dimensions, Mass and Permissible Variations of Hot Rolled Steel Sections
G 3193-90	Dimensions, Weight and Permissible Variations of Hot Rolled Steel Plates, Sheets and Strip
G 3194-98	Dimensions, Weight and Permissible Variations of Hot Rolled Steel Flats

1.2 QUALIFICATION OF WELDERS: In accordance with JASS 6, using procedures, materials, and equipment of the type required for the work.

1.3 DELIVERY AND STORAGE: Protect from corrosion, deformation, and other types of damage. Store items in an enclosed area free from contact with soil and weather. The Contractor shall replace and remove damaged items with new items.

PART 2 PRODUCTS

2.1 MATERIALS:

2.1.1 Steel Framing Members: JIS G 3101, Class SS 400 for materials; JIS G 3191, G 3192, G 3193, and G 3194 for sizes of steel

bars, sections, plates, and flats respectively, and as indicated on drawing.

2.1.2 Chemical Anchor: Shall be a two-part system composed of a threaded rod stud and a sealed glass capsule containing premeasured amounts of epoxy acrylic resin, quartz sand, and a hardener contained in a separate vial within the capsule. Pulling strength of chemical anchor (with rod of 6 diameter) shall be min 500 kg.

PART 3 EXECUTION

3.1 INSTALLATION: In accordance with JASS 6 and the each manufacturer’s instruction.

*** END OF SECTION ***

DIVISION 6

WOOD AND PLASTICS

SECTION 06200

ROUGH AND FINISH CARPENTRY

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the designation only.

1.1.1 Japanese Architectural Standards Specification:

JASS 11-68 Carpentry

1.1.2 Japanese Agricultural Standards (JAS) Association Publications:

SL-86 Sawn Lumber
OP-86 Ordinary Plywood
SP-86 Special Plywood

1.1.3 Japanese Industrial Standards (JIS):

A 5703-94 Plastic Laminated or Printed Boards for Inside Use
A 6005-91 Asphalt Roofing Felts

1.2 SUBMITTALS: Submit the following items as specified in Section 01330, “Submittal Procedures”.

1.2.1 SD-02, Manufacturer's Catalog Data:

a. System kitchen set

1.2.2 SD-04, Drawings:

a. Installation details of system kitchen set

1.3 DELIVERY AND STORAGE: In accordance with JASS 11.

1.4 GRADING AND MARKING:

1.4.1 Lumber: Identify each piece or each bundle of lumber, millwork, and trim by the grade mark of a recognized association or independent inspection agency that is certified by the Minister of Japanese Agriculture, Forestry, and Fishery to grade the species.

1.4.2 Plywood: Mark each sheet with the mark of a recognized association or independent inspection agency that maintains continuing control over the quality of the plywood.

1.5 SIZES AND SURFACING: Lumber shall be surfaced four sides. Size references, unless otherwise specified, are nominal sizes, and actual sizes shall be within manufacturing tolerances allowed by the standard under which the product is produced.

1.6 MOISTURE CONTENT OF WOOD PRODUCT: Air-dry or kiln-dry lumber.

PART 2 - PRODUCTS:

2.1 MATERIALS: Materials not otherwise specified herein shall conform to JASS 11.

2.1.1 Lumber and Wood: JAS "Sawn Lumber," Class No.1, as indicated on drawing.

2.1.2 Plywood: JAS "Ordinary Plywood", Type 1-Rui, as indicated on drawing.

2.1.3 Waterproof Type Plywood: JAS "Special Plywood", Type 1-Rui, as indicated on drawing.

2.1.4 Plastic Laminated Sheet: JIS A 5703.

2.1.5 Asphalt Roofing: JIS A 6005, Type 940.

2.2 FASTENERS: Provide sizes, types, and spacings of manufacture building materials in accordance with the product manufacturer except as otherwise indicated.

2.2.1 Chemical Anchor: Shall be a two-part system composed of a threaded rod stud and a sealed glass capsule containing premeasured amounts of epoxy acrylic resin, quartz sand, and a hardener contained in a separate vial within the capsule. Pulling strength of chemical anchor (with rod of 6 diameter) shall be min 500 kg.

2.3 SYSTEM KITCHEN SET: As indicated on drawing.

PART 3 - EXECUTION

3.1 WORKMANSHIP: All carpentry work on this project shall be governed by the applicable requirements of JASS 11.

*** END OF SECTION ***

DIVISION 7

THERMAL AND MOISTURE PROTECTION

SECTION 07212

INSULATION

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 24-95 Thermal Insulation Work

1.1.2 Japanese Industrial Standards (JIS):

A 9504-99 Man Made Mineral Fiber Thermal Insulation Materials

1.2 DELIVERY, STORAGE, AND HANDLING: In accordance with JASS 24.

PART 2 - PRODUCTS

2.1 INSULATION: JIS A 9504, Type GW, asbestos free, as indicated on drawing.

PART 3 EXECUTION

3.1 WORK PROCEDURES: In accordance with JASS 24 and the insulation manufacturer's instruction.

*** END OF SECTION ***

SECTION 07513

MINERAL SURFACED BITUMINOUS BUILT-UP ROOFING

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standards Specification:

JASS 8-93 Waterproofing and Sealing

1.1.2 Japanese Industrial Standards (JIS):

A 6005-91 Asphalt Roofing Felts
K 2207-96 Petroleum Asphalts

1.2 SUBMITTALS: Submit the following in accordance with Section 01330, "Submittal Procedures."

1.2.1 SD-08, Experience Record: The installer shall have at least ten(10) years of experience with this type of roofing installation, and shall submit this experience record for approval by the Contracting Officer.

1.3 QUALITY ASSURANCE:

1.3.1 Qualifications of Applicator: The roofing system applicator shall be approved, authorized, or licensed in writing by the roofing system manufacturer and be approved at a level capable of providing the specified warranty.

1.3.2 Qualification of Roofing System Work Supervisor: The supervisor of the roofing system work shall have the Certification of Architectural Finishing Work Manager, 2nd Class ("2-kyu Kenchiku Sekoh Kanri Gishi (Shiage)) certificated by the Ministry of Construction, Japan. The Supervisor shall supervise the roofing system work and have all responsibilities of the work.

1.3.3 Preroofing Conference: After approval of submittals and before roofing work, including associated work is performed, the Contracting Officer will hold a preroofing conference to review as follows. The preroofing conference shall be attended by the Contractor and personnel directly responsible for the roofing installation, flashing and sheet metal work, mechanical and electrical work, and representative of the roofing materials manufacturer. Conflicts among

those attending the preroofing conference shall be resolved and confirmed in writing before roofing work, including associated work, is begun.

a. Drawings and specifications.

b. Procedure for on site inspection and acceptance of roofing substrate and pertinent structural details relating to roofing system.

c. Contractor's plan for coordination of work of the various trades involved in providing roofing system and other components secured to roofing.

d. Safety requirements.

1.4 DELIVERY, STORAGE, AND HANDLING: In accordance with JASS 8.

1.5 ENVIRONMENTAL CONDITIONS: In accordance with JASS 8.

1.6 PROTECTION OF PROPERTY:

1.6.1 Protective Coverings: Install protective coverings at paving and building walls adjacent to hoist and kettles prior to starting work. Lap protective coverings not less than 150 mm (6 inches), secure against wind, and vent to prevent collection of moisture on covered surfaces. Keep protective coverings in place for duration of roofing work.

1.6.2 Flame-Heated Equipment: Do not place flame-heated equipment on roof unless approved in writing by the Contracting Officer. Provide and maintain a fire extinguisher adjacent to flame-heated equipment and on the roof.

1.7 WARRANTY: Furnish manufacturer's warranty for the roofing system. The warranty period shall be not less than five(5) years from the date of Government acceptance of the work. The warranty shall be issued directly to the Government. The warranty shall provide that if within the warranty period the roofing system becomes non-watertight or shows evidence of corrosion, perforation, rupture or excess weathering due to deterioration of the roofing system resulting from defective materials or workmanship the repair or replacement of the defective materials and correction of the defective workmanship shall be the responsibility of the roofing system manufacturer. Repairs that become necessary because of defective materials and workmanship while roofing is under warranty shall be performed within 7 days after notification, unless additional time is approved by the Contracting Officer. Failure to perform repairs within the specified period of time will constitute grounds for having the repairs performed by others and the cost billed to the manufacturer.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Asphalt: JIS K 2207, Type 2.

2.1.2 Asphalt Roofing Felt: JIS A 6005, Type 940.

2.1.3 Sanded Asphalt Roofing Felt: JIS A 6005, Type 3500.

2.1.4 Cant: Polyurethane foamed cant, as indicated on drawing.

2.1.5 Silver Coat: As specified in Section 09900, “Paints and Coatings”.

PART 3 EXECUTION

3.1 WORK PROCEDURES: Unless otherwise indicated on drawing, work procedures shall be in accordance with JASS 8 and the each manufacturer's instruction.

*** END OF SECTION ***

SECTION 07920

SEALANT

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standards Specification:

JASS 8-93 Waterproofing and Sealing

1.1.2 Japanese Industrial Standard (JIS):

A 5758-97 Sealants for Sealing and Glazing in Buildings

1.2 ENVIRONMENTAL CONDITIONS: In accordance with JASS 8.

1.3 DELIVERY AND STORAGE: In accordance with JASS 8.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Sealant: JIS A 5758, Type SR.

2.1.2 Primer: Provide a nonstaining, quick-drying type of consistency in accordance with the sealant manufacturer for the particular application.

2.1.3 Bond Breaker: Provide the type and consistency in accordance with the sealant manufacturer for the particular application.

2.1.4 Backstops: Provide glass fiber roving or neoprene, butyl, polyurethane, or polyethylene foams free from oil or other staining elements in accordance with the sealant manufacturer. Backstop material shall be compatible with sealant.

2.1.5 Cleaning Solvents: Provide type(s) in accordance with the sealant manufacturer.

PART 3 - EXECUTION

3.1 WORK PROCEDURE: In accordance with JASS 8 and the each manufacturer’s instruction.

*** END OF SECTION ***

DIVISION 8

DOORS AND WINDOWS

SECTION 08110

DOOR AND WINDOW

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standards Specification:

JASS 16-98	Doors, Windows, and Shutter Work
JASS 17-91	Glazing

1.1.2 Japanese Industrial Standards (JIS):

A 1510-01	Test Method for Door Fittings of Buildings
A 4702-00	Doorsets
A 4706-00	Windows
A 4709-93	Screens for Aluminum Sliding Windows
H 4100-99	Aluminum and Aluminum Alloy Extruded Shapes
G 4305-99	Cold Rolled Stainless Steel Plates, Sheets and Strip
G 3312-94	Prepainted Hot-dip Zinc-coated Steel Sheets and Coils
G 3351-87	Expanded Metals
R 3202-96	Float Glass and Polished Plate Glass
R 3203-99	Patterned Glass
R 3206-97	Tempered Glass

1.2 DELIVERY AND STORAGE: In accordance with JASS 16 and JASS 17.

PART 2 - PRODUCTS

2.1 DOOR AND FRAME: Steel swing flush, light steel swing flush, and wood swing flush doors and frames, JIS A 4702, with glass, door hardware, and related items, as indicated on drawing.

2.2 WINDOW AND FRAME: Aluminum(JIS H 4100) sliding window and frame, JIS A 4706, with clear glass, set hardware, insect screen, and related items, as indicated on drawing.

2.3 METAL SCREEN: JIS G 3351, as indicated on drawing.

2.4 MATERIALS:

2.4.1 Door Hardware: JIS A 1510, as indicated on drawing.

2.4.2 Glass:

2.4.2.1 Figured Glass: JIS R 3203, as indicated on drawing.

2.4.2.2 Tempered Glass: JIS R 3206, as indicated on drawing.

2.4.2.3 Clear Glass: JIS R 3202, as indicated on drawing.

2.4.3 Insect Screen: JIS A 4709.

2.4.4 Flashing: Pre-coated galvanized steel sheet, JIS G 3312.

2.4.5 Stainless Steel(SST): JIS G 4305, SUS 304.

PART 3 - EXECUTION

3.1 INSTALLATION: In accordance with JASS 16 and JASS 17 and the each manufacturer’s instruction.

*** END OF SECTION ***

DIVISION 9

FINISHES

SECTION 09100

METAL SUPPORT ASSEMBLIES

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standards (JIS):

A 6517-95	Steel Furrings for Wall and Ceiling in Buildings
G 3302-98	Hot-dip Zinc-coated Steel Sheets and Coils
G 3350-87	Light Gauge Steels for General Structure
H 4100-99	Aluminum and Aluminum Alloy Extruded Shapes

1.2 DELIVERY, STORAGE, AND HANDLING: Deliver materials to the job site and store in ventilated dry locations. Storage area shall permit easy access for inspection and handling. If materials are stored outdoors, stack materials off the ground, supported on a level platform, and fully protected from the weather. Handle materials carefully to prevent damage. Remove damaged items and provide new items.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Wall Stud and Suspended Ceiling System: JIS A 6517, as indicated on drawing.

2.1.2 Galvanized Steel(GS): JIS G 3302.

2.1.3 Light Gauge Steel: JIS G 3350, as indicated on drawing.

2.1.4 Ceiling Access Hatch: Aluminum(JIS H 4100), as indicated on drawing.

PART 3 - EXECUTION

3.1 INSTALLATION: In accordance with the each manufacturer's instruction.

*** END OF SECTION ***

SECTION 09212

MORTAR WORK

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 15-98 Plastering Work

1.1.2 Japanese Industrial Standards (JIS):

A 5505-95 Metal Lath
R 5210-97 Portland Cement

1.2 DELIVERY AND STORAGE: Manufactured materials shall be delivered in the manufacturer's original unbroken package or containers which are labeled plainly with the manufacturer's name and brands. Keep cementitious materials dry until ready to be used; store them off the ground under cover and away from sweating walls and other damp surfaces.

1.3 ENVIRONMENTAL CONDITIONS: In accordance with JASS 15.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Cement Mortar: JASS 15. Mix in the proportion of one part by volume of Portland cement(JIS R 5210) to not more than 3/4 part by volume of hydrated lime and not less than 2 1/2 nor more than 4 parts by volume of damp loose sand.

2.1.2 Waterproof Cement Mortar: Shall be cement fine aggregate, portland cement, water, and waterproofing agent, so proportioned in accordance with the waterproofing agent manufacturer's instruction.

2.1.3 Adhesive: A two component epoxy resin-base binder mixed with hardener, in accordance with the each cement mortar manufacturer.

2.1.4 Metal Lath: JIS A 5505.

PART 3 - EXECUTION

3.1 MORTAR WORKS: In accordance with JASS 15 and the each manufacturer’s instruction.

*** END OF SECTION ***

SECTION 09250

GYPSUM BOARD AND CEMENT BOARD

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 26-91 Interior Work

1.1.2 Japanese Industrial Standards (JIS):

A 6901-97 Gypsum Boards

1.2 DELIVERY, HANDLING, AND STORAGE: In accordance with JASS 26.

1.3 COLOR SELECTION: Where not indicated or specified, color shall be selected by the Contracting Officer from the manufacturer's color sample.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Gypsum Boards: JIS A 6901, Type GB-R, as indicated on drawing.

2.1.2 Waterproof Gypsum Board: JIS A 6901, Type GB-S, as indicated on drawing.

2.1.3 Cement Board: Non-asbestos type and fiber mixed cement board ("Flexible Board"), shall be noncombustible materials ("Funen") which are designated by the Minister of Construction, as indicated on drawing.

PART 3 - EXECUTION

3.1 APPLICATION: In accordance with JASS 26 and the each manufacturer's instruction.

*** END OF SECTION ***

SECTION 09310

CERAMIC AND MOSAIC TILE

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standards (JIS):

A 5209-94	Ceramic Tiles
R 5210-97	Portland Cement
H 4100-99	Aluminum and Aluminum Alloy Extruded Shapes

1.1.2 Japanese Architectural Standard Specification:

JASS 19-96	Ceramic Tile Work

1.2 SUBMITTAL: Submit the following items as specified in Section 01330, "Submittal Procedures".

1.2.1 SD-15, Color Selection Sample:

a. Ceramic tile
b. Mosaic tile

1.3 DELIVERY, STORAGE, AND HANDLING: In accordance with JASS 19.

1.4 ENVIRONMENTAL CONDITIONS: In accordance with JASS 19.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Ceramic and Mosaic Tile: JIS A 5209, porcelain tile, as indicated on drawing.

2.1.2 Cement: JIS R 5210, Class normal Portland Cement.

PART 3 - EXECUTION

3.1 APPLICATION: In accordance with JASS 19 and the each manufacturer’s instruction.

*** END OF SECTION ***

SECTION 09510

ACOUSTICAL CEILING TILE

PART 1 - GENERAL:

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 26-91 Interior Work

1.1.2 Japanese Industrial Standards (JIS):

A 6301-00 Sound Absorbing Materials

1.2 DELIVERY AND STORAGE: In accordance with JASS 26.

1.3 ENVIRONMENTAL CONDITIONS: In accordance with JASS 26.

1.4 COLOR SELECTION: Where not indicated or specified, color shall be selected by the Contracting Officer from the manufacturer's color sample.

PART 2 - PRODUCTS:

2.1 MATERIALS:

2.1.1 Acoustic Tile: JIS A 6301, Type DR, asbestos-free type, as indicated on drawing.

PART 3 - EXECUTION

3.1 APPLICATION: In accordance with JASS 26 and the each board manufacturer's instruction.

*** END OF SECTION ***

SECTION 09651

VINYL SHEET AND TILE FLOORING

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 26-91	Interior Work

1.1.2 Japanese Industrial Standards (JIS):

A 5536-96	Adhesive for Floorcovering -- P.V.C.
A 5705-98	Floorcovering - PVC
G 4305-99	Cold Rolled Stainless Steel Plates, Sheets and Strip

1.2 SUBMITTAL: Submit the following items as specified in Section 01330, “Submittal Procedures”.

1.2.1 SD-15, Color Selection Sample:

a. Vinyl sheet
b. Vinyl tile

1.3 DELIVERY AND STORAGE: In accordance with JASS 26.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Vinyl Sheet and Tile: JIS A 5705, Type CT, non-asbestos type, as indicated on drawing.

2.1.2 Adhesive: JIS A 5536, non-hormaldehyde, non-asbestos, and lead free type, in accordance with the vinyl sheet, tile, and base manufacturers.

2.1.3 Molding: Stainless steel, JIS G 4305, SUS 304.

PART 3 - EXECUTION

3.1 APPLICATION: In accordance with JASS 26 and the each manufacturer’s instruction.

*** END OF SECTION ***

SECTION 09685

CARPET TILE

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Architectural Standard Specification:

JASS 26-91 Interior Work

1.1.2 Japanese Industrial Standards (JIS):

G 4305-99 Cold Rolled Stainless Steel Plates, Sheets and Strip

1.2 SUBMITTAL: Submit the following items as specified in Section 01330, “Submittal Procedures”.

1.2.1 SD-02, Manufacturer's Catalog Data:

a. Carpet tile

1.2.2 SD-15, Color Selection Sample:

a. Carpet tile

1.3 DELIVERY AND STORAGE: In accordance with JASS 26.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Carpet Tile: Provide carpet of tufted, woven, fusion-bonded, or knitted construction; first quality; and free of visual blemishes, streaks, poorly dyed areas, and other physical and manufacturing defects, as indicated on drawing. Use nontoxic carpet materials and treatments, reasonably nonallergenic, and free of other recognized health hazards.

2.1.2 Molding: Stainless steel, JIS G 4305, SUS 304.

PART 3 - EXECUTION

3.1 APPLICATION: In accordance with JASS 26 and the each manufacturer’s instruction.

*** END OF SECTION ***

SECTION 09900

PAINTS AND COATINGS

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Steel Structures Painting Council (SSPC) Specifications:

SSPC-SP 1-82 Solvent Cleaning

1.1.2 Japan Paint Manufacturer's Association (JPMA) Publication:

2001 A Paint Color Samples

1.1.3 Japanese Architectural Standard Specification:

JASS 18-98 Paint Work

1.1.4 Japanese Industrial Standards (JIS):

A 6909-00 Coating Materials for Textured Finishes of Buildings
K 5516-92 Ready Mixed Paint (Synthetic Resin Type)
K 5582-95 Vinyl Chloride Resin Enamel
K 5583-95 Vinyl Chloride Resin Primer
K 5663-95 Synthetic Resin Emulsion Paints
K 5492-95 Aluminum Paint

1.1.5 Code of Federal Regulations (CFR):

29 CFR 1910.1000 Air Contaminants

1.2 SUBMITTALS: Submit the following items as specified in Section 01330, "Submittal Procedures".

1.2.1 SD-13, Certificates:

a. Manufacturer's Material Safety Data Sheets(MSDS): Submit for coatings, solvents, and other potentially hazardous materials, as defined in the Japanese Labor, Safety and Sanitation Law; and Japanese Regulation of Organic Solvent Toxication Prevention.

1.3 QUALITY ASSURANCE:

1.3.1 Qualification of Airless Spray Applicators: Shall have experiences of application of paint by airless spray at a minimum of two other sites at past.

1.3.2 Field Samples and Tests: The Government will take one-pint samples of paint at random from the products delivered to the job site and test them to verify that the products either conform to the referenced specifications or the approved substitution. Products which do not conform shall be removed from the job site and replaced with new products that conform to the referenced specification or the approved substitution.

1.4 REGULATORY REQUIREMENTS:

1.4.1 Environmental Protection: In addition to requirements specified elsewhere for environmental protection, the Contractor shall provide coating materials that conform to the restrictions of the Japanese Air Pollution Control Act regional jurisdiction. Notify the Contracting Officer of any paint specified herein which fails to conform to the Air Quality Management District Rules for the location of the project. In localities where the specified coating or paint is prohibited, the Contracting Officer may direct the substitution of the acceptable coating systems.

1.4.2 Lead Content: Do not use coatings having a lead content over 0.06 percent by weight of nonvolatile content.

1.4.3 Chromate Content: Do not use coatings containing zinc-chromate or strontium-chromate.

1.4.4 Asbestos Content: Materials shall not contain asbestos.

1.4.5 Mercury Content: Materials shall not contain mercury or mercury compounds.

1.5 DELIVERY AND STORAGE: Deliver materials in sealed, labeled containers bearing the manufacturer's name, brand designation, specification number, batch number, color, and date of manufacture. Restrict storage and mixing of materials to locations designated by the Contracting Officer.

1.6 SAFETY METHODS: Apply coating materials using safety methods and equipment in accordance with the following:

1.6.1 Safety Methods Used During Coating Application: Comply with the requirements of SSPC-PA Guide 3.

1.6.2 Toxic Materials: To protect personnel from overexposure to toxic materials, conform to the most stringent guidance of:

a. The chemical manufacturer when using mineral spirits, or other chemicals. Use impermeable gloves, chemical goggles or faceshield, and other recommended protective clothing and equipment to avoid exposure of skin, eyes, and respiratory system. Conduct work in a manner to minimize exposure of building occupants and the general public.

b. 29 CFR 1910.1000.

c. The Japanese Labor, Safety, and Sanitation Law.

d. Japanese Regulation of Organic Solvent Toxication Prevention

e. Manufacturer's Material Safety Data Sheets (MSDS).

1.7 ENVIRONMENTAL CONDITIONS: In accordance with JASS 18.

1.8 COLOR SELECTION: Colors of finish coats shall be as indicated or specified. Where not indicated or specified, colors and type of paint (such as gloss, semi-gloss, etc.) shall be selected by the Contracting Officer from color samples of JPMA.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Ready Mixed Paint(Synthetic Resin Type): JIS K 5516.

2.1.2 Synthetic Resin Emulsion Paints: JIS K 5663.

2.1.3 Vinyl Chloride Resin Enamel: JIS K 5582.

2.1.4 Vinyl Chloride Resin Primer: JIS K 5583.

2.1.5 Aluminum Paint: JIS K 5492.

2.1.6 Coating Materials for Textured Finish: JIS A 6909, Type E.

PART 3 - EXECUTION

3.1 PROTECTION OF AREAS AND SPACES: Prior to surface preparation and coating applications, remove, mask, or otherwise protect, hardware, hardware accessories, machined surfaces, public and private property, and other such items not to be coated that are in contact with surfaces to be coated. Following completion of painting, workmen skilled in the trades involved shall reinstall removed items. Restore surfaces

contaminated by coating materials, to original condition and repair damaged items.

3.2 SURFACE PREPARATION: Before application of painting, prepare surfaces as specified in this paragraph and its subparagraphs, unless specified under the other paragraphs of this section and unless indicated on drawing. Remove dirt, splinters, loose particles, grease, oil, disintegrated coatings, and other substances deleterious to coating performance as specified for each substrate.

3.2.1 New Steel Surface: Solvent clean in accordance with SSPC-SP 1 to remove oil and grease.

3.2.2 New and Existing Wood Surface:

a. Surface Cleaning: Surfaces shall be free from dust and other deleterious substances and in a condition approved by the Contracting Officer prior to receiving paint or other finish. Do not use water to clean uncoated wood. Scrape with hand scraper to remove loose coatings.

b. Removal of Fungus and Mold: Wash existing coated surfaces with a solution composed of 3 ounces (2/3 cup) trisodium phosphate, 1 ounce (1/3 cup) household detergent, 1 quart 5 percent sodium hypochlorite solution and 3 quarts of warm water. Rinse thoroughly with fresh water.

c. Cosmetic Repair of Minor Defects:

(1) Knots and Resinous Wood: Prior to application of paint, treat with an application of commercially available knot sealer.

(2) Open Joints and Other Openings: Fill with whiting putty. Sand smooth after putty has dried.

(3) Checking: Where checking of the wood is present, sand the surface, wipe and apply a coat of pigmented orange shellac. Allow to dry before paint is applied.

d. Cracks and Nailheads: Set and putty stop nailheads and putty cracks after the prime coat has dried.

3.2.3 New Gypsum Board, Waterproof Gypsum Board, Cement Board, and Cement Mortar, and Existing Gypsum Board and Cement Mortar Surface:

a. Surface Cleaning: Surface shall be clean, free from loose matter, and dry. Remove loose dirt and dust by brushing with a soft brush or rubbing with a dry cloth prior to application of the first coat material.

b. Repair of Minor Defects: Prior to painting, repair joints, cracks, holes, surface irregularities, and other minor defects with patching plaster or spackling compound and sand smooth.

3.2.4 New Mineral Surfaced Bituminous Built-up(MSBB) Roofing Surface: Surface shall be clean, free from loose matter, and dry. Remove loose dirt and dust by brushing with a soft brush prior to application of the first coat material in accordance with the coating manufacturer.

3.3 APPLICATION:

3.3.1 Coating Application: Apply coating materials in accordance with JASS 18.

3.3.2 Equipment: Apply coatings with approved brushes, approved rollers, or approved spray equipment, unless specified otherwise. Spray areas made inaccessible to brushing by items such as ducts and other equipment.

3.3.3 Thinning of Paints: Reduce paints to proper consistency by adding fresh paint in accordance with the manufacturer's instructions, except when thinning is mandatory for the type of paint being used. Obtain written permission from the Contracting Officer to use thinners. The written permission shall include quantities and types of thinners to use.

3.3.4 Coating Systems:

3.3.4.1 Steel and Wood Surface: Apply anti-corrosive paint in accordance with the top coat manufacturer, and one intermediate and top coat of synthetic resin type ready mixed paint, JIS K 5516, in the rate of 0.08 kg/m² per one coat.

3.3.4.2 Gypsum Board and Cement Mortar Surface: Apply sealer in accordance with the coating manufacturer, and two coats of synthetic resin emulsion paint, JIS K 5663, in the rate of 0.12 kg/m² per one coat.

3.3.4.3 Waterproof Gypsum Board Surface: Apply primer, JIS K 5583, in accordance with the coating manufacturer, and two coats of vinyl chloride resin enamel type paint, JIS K 5582, in the rate of 0.12 kg/m² per one coat.

3.3.4.4 Exterior Cement Board Surface: Apply multi-layer wall coating system of JIS A 6909, Type E, as follows:

a. Sealer: Apply one coat of sealer for absorption control of main coat in accordance with the top coat manufacturer. The quantity of coat shall be 0.15 through 0.3 kg/m².

b. Base Coat: Apply one base coat in accordance with the top coat manufacturer. The quantity of coat shall be 1.0 through 1.5 kg/m².

c. Pattering Coat: Apply one coat for patterning in accordance with the top coat manufacturer. The quantity of coat shall be 0.8 through 1.0 kg/m².

d. Top Coat: Apply two coats in accordance with the coating manufacturer. The quantity of coat shall be 0.3 through 0.35 kg/m² per one coat.

3.3.4.5: MSBB Surface: Apply primer in accordance with the coating manufacture, and two coats of aluminum paint, JIS K 5492, in the rate of 0.12 kg/m² per one coat.

3.4 INSPECTION AND ACCEPTANCE: In addition to meeting the previously specified requirements, demonstrate the mobility of moving components, including but not limited to swinging and sliding doors, cabinets, and windows with operable sash, for inspection by the Contracting Officer. Perform this demonstration after appropriate curing and drying times of the coatings have elapsed and prior to invoicing for final payment.

*** END OF SECTION ***

DIVISION 10

SPECIALTIES

SECTION 10153

TOILET AND SHOWER PARTITION

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standard (JIS):

G 4305-99	Cold Rolled Stainless Steel Plates, Sheets and Strip
G 3459-97	Stainless Steel Pipes

1.2 SUBMITTALS: Submit the following items as specified in Section 01330, “Submittal Procedures”.

1.2.1 SD-04, Drawings:

a. Construction details of shower pan

1.3 DELIVERY, STORAGE, AND PROTECTION: Deliver materials to the site in original sealed containers or packages, bearing the manufacturer's name and brand designation.

1.4 COLOR SELECTION: Where not indicated or specified, color shall be selected by the Contracting Officer from the manufacturer’s color sample.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Toilet Partition with Door: Fiber reinforced plastic(FRP) sheet finish partition and door with stainless steel(SST)(JIS G 4305, SUS 304) frame and accessories, as indicated on drawing.

2.1.2 Shower Partition: FRP sheet finish partition with SST frame, with vinyl shower curtain and SST curtain rod, as indicated on drawing.

2.1.2.1 Stainless Steel Pipe: JIS G 3459, as indicated on drawing.

PART 3 - EXECUTION

3.1 INSTALLATION: In accordance with the each manufacturer’s instruction.

*** END OF SECTION ***

DIVISION 13

SPECIAL CONSTRUCTION

SECTION 13281

ENGINEERING CONTROL OF ASBESTOS CONTAINING MATERIALS

PART 1 GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 American National Standards Institute (ANSI):

ANSI Z9.2 (1979; R 1991) Fundamentals Governing the Design and Operation of Local Exhaust Systems

1.1.2 American Society for Testing and Materials (ASTM):

ASTM E 1368 (1990) Visual Inspection of Asbestos Abatement Projects

1.1.3 Code of Federal Regulations (CFR):

29 CFR 1910.134	Respiratory Protection
29 CFR 1926.200	Accident Prevention Signs and Tags
29 CFR 1926.59	Hazard Communication
29 CFR 1926.1101	Asbestos, Tremolite, Anthophyllite, Actinolite
40 CFR 61-SUBPART A	General Provisions
40 CFR 61-SUBPART M	National Emission Standard for Asbestos
40 CFR 763	Asbestos Containing Material in Schools

1.1.4 Navy Directives (ND):

ND OPNAVINST 5100.23 (Rev. E) Navy Occupational Safety and Health (NAVOSH) Program Manual

1.1.5 UNDERWRITERS LABORATORIES INC. (UL):

UL 586 (1996) High-Efficiency, Particulate, Air Filter Units

1.1.6 Department of Defense (DOD), Japan Environmental Governing Standards (JEGS), by US Forces Japan, October 2001, Version 1.1(Revised: June 2002).

1.1.7 Japanese Laws:

a. Air Pollution Control Law ("Taiki Osenn Boushi Hou")
b. Industrial Safety and Health Law ("Rou-dou Anzen Eisei Hou")
c. Measuring Law ("Keiryo Hou")
d. Waste Disposal and Public Cleansing Law ("Haiki-butsu Shori Oyobi Seisou-ni Kansuru Houritsu")

1.1.8 Japanese Industrial Standards (JIS):

K 3850-95 Measuring Method for Airborne Fibrous Particles

1.1.9 National Institute for Occupational Safety and Health (NIOSH):

NIOSH Pub No. 84-100 NIOSH Manual of Analytical Methods (1984; Supple 1985, 1987, 1988 & 1990)

1.2 DEFINITIONS:

1.2.1 ACM: Asbestos Containing Materials.

1.2.2 Asbestos: The term asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite and any of these minerals that has been chemically treated or altered. Materials are considered to contain asbestos if the asbestos content of the material is determined to be more than one(1) percent by weight.

1.2.3 Asbestos Regulated Area: That area where asbestos removal operations are performed which is isolated by physical boundaries which assist in the prevention of the uncontrolled release of asbestos dust, fibers, or debris.

1.2.4 Asbestos Fibers: Those fibers having an aspect ratio of at least 3:1 and longer than 5 micrometers as determined by NIOSH Pub No 84-100 Method 7400 or JIS K 3850.

1.2.5 Contractor: The Contractor is that individual, or entity under contract to the Navy to perform the herein listed work.

1.2.6 HEPA Filter Equipment: UL 586 or JIS Z 4812. High efficiency particulate air (HEPA) filtered vacuum, exhaust ventilation equipment (negative air machine) and/or waste water pump with a filter system capable of collecting and retaining asbestos fibers. Filters shall retain 99.97 percent of particles 0.3 microns or larger.

1.2.7 Competent Person(CP): Person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees,

who has authorization to take prompt corrective measures to eliminate them, who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them; in addition, for Class I and Class II work who is specially trained in an Asbestos Contractor/Supervisor training course or local equivalent which meets the criteria of EPA's Model Accrediation Plan(40 CFR part 763) for supervisor, and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92 (a)(2). The CP shall be qualified to perform visual inspection as indicated in ASTM E 1368 or local equivalent.

1.2.8 Qualified Person for Exposure Assessment and Monitoring(QPEAM): Person who has successfully completed the National Institute of Occupational Safety and Health (NIOSH) 582 course “Sampling and Evaluating Airborne Asbestos Dust”; or who has the license "Dai 1-shu Sagyo Kankyo Sokutei Shi"(Working Environment Measurement Expert, Class 1) qualified by the Ministry of Labor, Japan.

1.2.9 Classification of Asbestos Works:

Class I asbestos work means activities involving the removal of Thermal System Insulation (TSI) and surfacing Asbestos-containing material (ACM) and Presumed Asbestos Containing Material (PACM).

Class II asbestos work means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III asbestos work means repair and maintenance operations, where "ACM," including TSI and surfacing ACM and PACM, is likely to be disturbed.

Class IV asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

1.3 REQUIREMENTS:

1.3.1 Description of Work: The work covered by this section includes the handling and control of asbestos containing materials and describes some of the resultant procedures and equipment required to protect workers, the environment and occupants of the building or area, or both, from contact with airborne asbestos fibers. The work

also includes the disposal of any asbestos containing materials generated by the work. More specific operational procedures shall be outlined in the Asbestos Hazard Abatement Plan called for elsewhere in this specification.

1.3.1.1 Asbestos Containing Materials to be Removed: Remove existing vinyl tile as specified hereinafter.

1.3.2 Medical Requirements: Provide medical requirements including but not limited to medical surveillance and medical record keeping as listed in 29 CFR 1926.1101, or Industrial Safety and Health Law, Japan ("Roh-dou Anzen Eisei Hou").

1.3.3 Worker Training: Submit certificates prior to the start of work but after the main abatement submittal, signed by each worker indicating that the employee has received training in the proper handling of materials and wastes that contain asbestos in accordance with 40 CFR 763; understands the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of the respiratory equipment to be used related to health and respiratory equipment as indicated in 29 CFR 1926.1101 on an initial and annual basis. Certificates shall be organized by individual worker, not grouped by type of certification. Post appropriate evidence of compliance with the training requirements of 40 CFR 763. Train all personnel involved in the asbestos control work in accordance with United States Environmental Protection Agency (USEPA) Asbestos Hazard Emergency Response Act (AHERA) training criteria. The Contractor shall document the training by providing: dates of training, training entity, course outline, names of instructors, and qualifications of instructors upon request by the Contracting Officer. Furnish each worker with respirator training and fit testing administered by the CP as required by 29 CFR 1926.1101. Fully cover engineering and other hazard control techniques and procedures.

1.3.4 Permits, Licenses, and Notifications: Obtain necessary permits and licenses in conjunction with asbestos, hauling (Tokubetsu Kanri Sangyo Haikibutsu Syuusyuu Unpangyo Kyokasho), and disposition (Tokubetsu Kanri Sangyo Haikibutsu Shobungyo Kyokasho), and furnish notification of such actions prior to the start of work. The activity Asbestos Program Manager (APM) shall be notified of scope of asbestos work through the Contracting Officer.

1.3.5 Environment, Safety and Health Compliance: In addition to detailed requirements of this specification, comply with those applicable laws, ordinances, criteria, rules, and regulations of regional, GOJ, prefectural, and local authorities regarding handling, storing, transporting, and disposing of asbestos waste materials. Comply with the applicable requirements of the current issue of 29 CFR 1926.1101, 40 CFR 61-SUBPART A, 40 CFR 61-SUBPART M, ND OPNAVINST

5100.23 and DOD JEGS. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the work. Where the requirements of this specification, applicable laws, rules, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirement as defined by the Government shall apply. The following laws, ordinances, criteria, rules and regulations regarding removal, handling, storing, transporting and disposing of asbestos materials apply:

a. Air Pollution Control Law (Japanese Law)
b. Industrial Safety and Health Law (Japanese Law)
c. Measuring Law (Japanese Law)
d. Waste Disposal and Public Cleansing Law (Japanese Law)

1.3.6 Respiratory Protection Program: Establish and implement a respirator program as required by 29 CFR 1910.134. Submit a written description of the program to the Contracting Officer. Submit written program manual or operating procedure including methods of compliance with regulatory statutes.

1.3.6.1 Respirator Program Records: Submit records of the respirator program as required by 29 CFR 1926.1101.

1.3.7 Asbestos Hazard Control Supervisor: The Contractor shall be represented on site by a supervisor, trained using the model Contractor accreditation plan as indicated in the Federal statutes for all portions of the herein listed work.

1.3.8 Hazard Communication: Adhere to all parts of 29 CFR 1926.59 and provide the Contracting Officer with a copy of the Material Safety Data Sheets (MSDS) for all materials brought to the site.

1.3.9 Asbestos Hazard Abatement Plan: Submit a detailed plan of the safety precautions where applicable such as lockout, tagout, tryout, equipment, and work procedures to be used in the removal and demolition of materials containing asbestos. The plan, not combined with other hazard abatement plans, shall be prepared reviewed, approved, signed, and sealed by the CP. Provide a Table of Contents for each abatement submittal, which shall follow the sequence of requirements in the contract. Such plan shall include but not be limited to the precise personal protective equipment to be used including, but not limited to, respiratory protection, type of whole-body protection, the location of asbestos regulated areas, removal method, interface of trades involved in the construction, sequencing of asbestos related work, disposal plan, and a detailed description of the method to be employed in order to control environmental pollution. The plan shall also include (both fire and medical emergency) response plans. The Asbestos Hazard Abatement Plan shall be approved in writing prior to starting any asbestos work. The Contractor, Asbestos Hazard Control Supervisor, and CP shall meet with the Contracting

Officer prior to beginning work, to discuss in detail the Asbestos Hazard Abatement Plan, including work procedures and safety precautions. Once approved by the Contracting Officer, the plan will be enforced as if an addition to the specification. Any changes required in the specification as a result of the plan shall be identified specifically in the plan to allow for free discussion and approval by the Contracting Officer prior to starting work.

1.3.10 Landfill Approval: Submit written evidence that the landfill for disposal is approved for asbestos disposal by the Japanese local and prefectural regulatory agency(s). Submit to the Contracting Officer, manifest, prepared in accordance with DOD JEGS, signed and dated by an agent of the landfill, certifying the amount of asbestos materials delivered to the landfill, within 3 days after delivery.

1.3.11 CP Responsibilities:

a. Certify training as meeting all federal, and local requirements.
b. Review and approve Asbestos Hazard Abatement Plan for conformance to the applicable referenced standards.
c. Continuously inspect ACM removal work for conformance with the approved plan.
d. Ensure work is performed in strict accordance with specifications at all times.
e. Control work to prevent hazardous exposure to human beings and to the environment at all times.
f. Certify the conditions of the work as called for elsewhere in this specification.

1.3.12 QPEAM Responsibilities:

a. Perform air and wipe sampling.

1.4 SUBMITTALS: Submit the following in accordance with Section 01330, "Submittal Procedures."

1.4.1 SD-03, Product Data:

a. Protective clothing
b. Filters for vacuum cleaner
c. Respirators
d. Wetting agent
e. Glovebags

1.4.2 SD-07, Certificates:

a. Asbestos hazard abatement plan
b. Qualification of CP

c. Landfill approval
d. Worker training
e. Waste shipment records
f. Respiratory protection program
g. Hazardous waste manifest
h. Vacuum
i. Qualification of QPEAM
j. Testing laboratory

1.4.3 SD-11, Closeout Submittals:

a. Notifications
b. Rental equipment
c. Respirator program records
d. Permits and licenses

1.4.4 SD-06, Test Reports:

a. Air sampling results

1.5 QUALITY ASSURANCE:

1.5.1 Qualifications of CP: Submit name, address, and telephone number of the CP selected to perform responsibilities specified in paragraph titled “CP Responsibilities.” Provide previous experience of the CP. Submit proper documentation that the CP is trained and licensed in accordance with federal, or local laws.

1.5.2 Qualifications of QPEAM: Submit name, address, and telephone number of the QPEAM selected to perform responsibilities specified in paragraph titled “QPEAM Responsibilities.” Submit proper documentation that the QPEAM is trained and licensed in accordance with federal, or local laws.

1.5.3 Air Sampling Results: Complete fiber counting and provide resulting to the CP and QPEAM for review within 16 hours of the "time off" of the sample pump. Notify the Contracting Officer immediately of any airborne levels of asbestos fibers in excess of the acceptable limits. Submit sampling results to the Contracting Officer and the affected Contractor employees where required by law within 3 working days, signed by QPEAM performing air sampling, the testing laboratory's employee that analyzed the sample, and the CP.

1.6 EQUIPMENT:

1.6.1 Rental Equipment: Provide a copy of the written notification to the rental company concerning the intended use of the equipment and the possibility of asbestos contamination of the equipment.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 EQUIPMENT: Personnel shall wear and utilize protective clothing and equipment as specified herein. Provide manufacturer's certificate of compliance for all equipment used to contain airborne asbestos fibers.

3.1.1 Respirators: Select respirators from those approved by the National Institute for Occupational Safety and Health (NIOSH),or local equivalent approved by the Ministry of Labor, Japan.

3.1.1.1 Respirators for Handling Asbestos: Provide personnel engaged in pre-cleaning, cleanup, handling, removal and of asbestos materials with respiratory protection as indicated in 29 CFR 1910.134.

3.1.2 Exterior Whole Body Protection:

3.1.2.1 Outer Protective Clothing: Provide personnel exposed to asbestos with disposable "non-breathable," whole body outer protective clothing, head coverings, gloves, and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber gloves for comfort, but shall not be used alone. Make sleeves secure at the wrists, make foot coverings secure at the ankles, and make clothing secure at the neck by the use of tape.

3.1.2.2 Work Clothing: Provide cloth work clothes for wear under the outer protective clothing and foot coverings and either dispose of or properly decontaminate them as recommended by the CP after each use.

3.1.2.3 Eye Protection: Provide goggles to personnel engaged in asbestos abatement operations when the use of a full face respirator is not required.

3.1.3 Warning Signs and Labels: Provide bilingual warning signs printed in English and Japanese at all approaches to asbestos regulated areas. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide labels and affix to all asbestos materials, scrap, waste, debris, and other products contaminated with asbestos.

3.1.3.1 Warning Sign: Provide vertical format conforming to 29 CFR 1926.200, and 29 CFR 1926.1101 minimum 500 by 355 mm (20 by 14 inches) displaying the following legend in the lower panel:

Legend	Notation
Danger	25 mm (1-inch) Sans Serif Gothic or Block
Asbestos	25 mm (1-inch) Sans Serif Gothic or Block
Cancer and Lung Disease Hazard	6 mm (1/4-inch) Sans Serif Gothic or Block
Authorized Personnel Only	6 mm (1/4-inch) Gothic
Respirators and Protective Clothing are Required in this Area	6 mm (1/4-inch) Gothic

Spacing between lines shall be at least equal to the height of the upper of any two lines.

3.1.3.2 Warning Labels: Provide bilingual labels conforming to DOD JEGS of sufficient size to be clearly legible, displaying the following legend:

DANGER

ASBESTOS MATERIALS

AVOID CREATING DUST

CANCER AND LUNG DISEASE HAZARD

3.1.4 Tools : Vacuums shall be leak proof to the filter and equipped with HEPA filters as specified in para."HEPA Filter Equipment". Filters on vacuums shall conform to ANSI Z9.2 and UL 586 or JIS Z 4812. Do not use power tools to remove asbestos containing materials unless the tool is equipped with effective, integral HEPA filtered exhaust ventilation systems. Remove all residual asbestos from reusable tools prior to storage or reuse.

3.1.5 Rental Equipment: If rental equipment is to be used, furnish written notification to the rental agency concerning the intended use of the equipment and the possibility of asbestos contamination of the equipment.

3.2 WORK PROCEDURE: Perform asbestos related work in accordance with 29 CFR 1926.1101, 40 CFR 61-SUBPART M, DOD JEGS, and as specified herein. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, drinking, chewing gum, tobacco, or applying cosmetics shall not be permitted in the asbestos work or regulated areas. Personnel of other trades not engaged in the removal and demolition of asbestos containing material shall not be exposed at any time to airborne concentrations of asbestos unless all the personnel protection and training provisions of this specification are complied with by the trade personnel. Shut down the building heating, ventilating, and air conditioning system, cap the openings to the system with two layers of plastic sheeting prior to the commencement of asbestos work.

3.2.1 Protection of Existing Work to Remain: Perform work without damage or contamination of adjacent work. Where such work is damaged or contaminated as verified by the Contracting Officer using visual inspection, it shall be restored to its original condition or decontaminated by the Contractor at no expense to the Government as deemed appropriate by the Contracting Officer. This includes inadvertent spill of dirt, dust, or debris in which it is reasonable to conclude that asbestos may exist. When these spills occur, stop work immediately. Then clean up the spill. When satisfactory visual inspection are obtained from the CP, work may proceed at the discretion of the Contracting Officer.

3.2.2 Furnishings: Furniture and equipment will be removed from the area of work by the Government before asbestos work begins.

3.2.3 Precleaning: Wet wipe and HEPA vacuum all surfaces potentially contaminated with asbestos prior to establishment of an enclosure.

3.2.4 Asbestos Regulated Area Requirement: Asbestos regulated area is inside of the rooms where asbestos vinyl tile flooring exists as indicated on drawing. Shut the doors and windows during the asbestos work, and provide warning sign at the entrance of each room.

3.2.4.1 Asbestos Control Area Requirements for 2nd Floor Kitchen Area: Asbestos control area is inside of 2-meter roped-off areas around the steam supply piping, where asbestos contained insulation shall be removed.

3.2.5 Removal Procedures:

3.2.5.1 Vinyl Tile: Remove existing asbestos vinyl tile with heat remover in accordance with the vinyl tile manufacturer and immediately place in 0.15 mm plastic disposal bags.

3.2.5.2 Insulation on Steam Supply Piping in 2nd Floor Kitchen Area: Wet asbestos material with a fine spray of amended water during removal, cutting, or other handling so as to reduce the emission of airborne fibers. Remove asbestos containing insulation at disconnect portions of steam supply piping with glovegag technique, with continuous application of the amended water or wetting agent in such a manner that no asbestos material is disturbed prior to being adequately wetted. After removal of disconnection point insulations, wrap the pipes and insulation with plastic sheets, and remove pipe together with insulation by sections approximately 3-meter. Where unusual circumstances prohibit the use of 0.15 mm (6-mil) plastic bags, submit an alternate proposal for containment of asbestos fibers to the Contracting Officer for approval. For example, in the case where both piping and insulation are to be removed, the Contractor may elect to wet the insulation, wrap the pipes and insulation in plastic and remove the pipe by sections. Lower and otherwise handle asbestos containing material as indicated in DOD JEGS.

3.2.6 Air Sampling: Sampling and analysis of airborne concentrations of asbestos fibers shall be performed by the QPEAM in accordance with NIOSH Pub No 84-100 Method 7400 or JIS K 3850 and as specified herein. Sampling performed in accordance with 29 CFR 1926.1101 shall be performed by the QPEAM. Unless otherwise specified, use NIOSH Pub No 84-100 Method 7400 or JIS K 3850 for sampling and analysis. Monitoring may be duplicated by the Government at the discretion of the Contracting Officer. If the air sampling results obtained by the Government differ from those results obtained by the Contractor, the Government will determine which results predominate.

3.2.6.1 Sampling During Asbestos Work in Kitchen Area: On the first day of the following ACM removal work, conduct one(1) personal monitoring in accordance with 29 CFR 1926.1101 and governing environmental regulations.

a. Asbestos insulation on steam supply piping in 2nd floor kitchen area.

3.2.6.2 Sampling After Final Clean-Up (Clearance Sampling): After the following ACM removal work, and conduct one(1) clearance area sampling in accordance with 29 CFR 1926.1101 and governing environmental regulations.

a. Asbestos insulation on steam supply piping in 2nd floor kitchen area.

3.2.7 Visual Inspection: After final cleanup, the CP shall perform a visual inspection in accordance with ASTM E 1368 to ensure that the asbestos regulated area is free of any accumulations of dirt, dust, or debris. Prepare a written report signed and dated by the CP

documenting that the asbestos regulated area is free of dust, dirt, and debris and all waste has been removed.

3.2.8 Site Inspection: While performing asbestos engineering control work, the Contractor shall be subject to on-site inspection by the Contracting Officer who may be assisted by or represented by safety or industrial hygiene personnel. If the work is found to be in violation of this specification, the Contracting Officer or his representative will issue a stop work order to be in effect immediately and until the violation is resolved. All related costs including standby time required resolving the violation shall be at the Contractor's expense.

3.3 CLEAN-UP AND DISPOSAL:

3.3.1 Housekeeping: Essential parts of asbestos dust control are housekeeping and clean-up procedures. Maintain surfaces of the asbestos regulated area free of accumulations of asbestos fibers. Give meticulous attention to restricting the spread of dust and debris; keep waste from being distributed over the general area. Use HEPA filtered vacuum cleaners. DO NOT BLOW DOWN THE SPACE WITH COMPRESSED AIR. When asbestos removal is complete, all asbestos waste is removed from the work-site, and final clean up is completed, the Contracting Officer will attest that the area is safe before the signs can be removed. Dispose of filters as asbestos contaminated materials. Reestablish HVAC mechanical, and electrical systems in proper working order. The Contracting Officer will visually inspect all surfaces within the enclosure for residual material or accumulated dust or debris. The Contractor shall re-clean all areas showing dust or residual materials. If re-cleaning is required, air sample and establish an acceptable asbestos airborne concentration after re-cleaning. The Contracting Officer must agree that the area is safe in writing before unrestricted entry will be permitted. The Government shall have the option to perform monitoring to determine if the areas are safe before entry is permitted.

3.3.2 Title to Materials: All waste materials, except as specified otherwise, shall become the property of the Contractor and shall be disposed of as specified in applicable local, and Federal regulations and herein.

3.3.3 Disposal of Asbestos:

3.3.3.1 Procedure for Disposal: Collect and dispose of asbestos waste, asbestos contaminated water, scrap, debris, bags, containers, equipment, and asbestos contaminated clothing which may produce airborne concentrations of asbestos fibers in accordance with DOD JEGS and local regulations.

3.3.3.2 Asbestos Disposal Quantity Report: Direct the CP to record and report to the Contracting Officer, the amount of asbestos containing material removed and released for disposal. Deliver the report for the previous day at the beginning of each day shift with amounts of material removed during the previous day reported in linear meters or square meters (linear feet or square feet) as described initially in this specification and in cubic meters (feet) for the amount of asbestos containing material released for disposal.

*** END OF SECTION ***

SECTION 13852

INTERIOR FIRE DETECTION AND ALARM SYSTEM

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 National Fire Protection Association (NFPA):

NFPA 70 2002 National Electrical Code

1.2 SUBMITTALS: Submit the following.

1.2.1 SD-02, Manufacturer's Catalog Data:

a. Smoke detector
b. Heat detector

1.2.2 SD-04, Drawings

a. Combined fire alarm station
b. Fire alarm system wiring diagram
c. Wires
d. Conduits
e. Combined fire alarm station

1.2.3 SD-12, Field Test Reports

a. Smoke and heat detector test

1.2.4 SD-13, Statements:

a. Qualifications of installer

1.2.4.1 Qualifications of Installer: Prior to installation, submit data showing that Contractor has successfully installed systems of the same type and design as specified herein, or that Contractor has a firm contractual agreement with a subcontractor having such required experience. Data shall include names and locations of at least two installations where the Contractor, or the subcontractor referred to above, has installed such systems.

Indicate type and design of each system and certify that each system has performed satisfactorily in the manner intended for not less than 18 months.

PART 2 - PRODUCTS

2.1 COMBINATION ALARM BOX (COMBINED FIRE ALARM STATION): Combination alarm box, same type as the existing one, shall be provided as indicated.

2.2 HEAT DETECTORS: Heat detectors, same type as the existing one, shall be provided as indicated.

2.3 SMOKE DETECTORS: Smoke detectors, same type as the existing one, shall be provided as indicated.

2.4 WIRING: Provide in accordance with Section 16402, "Interior Distribution System." Conductors shall be solid copper. Conductors for 100-volt circuits shall be No. 12 AWG minimum; single conductors for low-voltage dc circuits shall be No. 14 AWG minimum. Conceal conduit in finished areas of new construction and wherever practicable in existing construction. Identify conductors within each enclosure where a tap, splice, or termination is made. Identify conductors by plastic-coated, self-sticking, printed markers or by heat-shrink type sleeves. Wire the alarm initiating and notification signal devices so that removal will cause the system trouble device to sound.

PART 3 - EXECUTION

3.1 INSTALLATION: Install fire alarm devices in accordance with manufacturer's written instructions.

3.1.1 Conduit System: Provide metal raceway and conduit system in accordance with Section 16402. "Electrical Distribution System."

3.1.2 Modification of Existing Fire Alarm Panel: Modify existing fire alarm panel to match additional fire alarm system. The modification shall include addition of zone number and modification of alarm circuit as indicated.

3.2 FIELD QUALITY CONTROL:

3.2.1 Preliminary Testing: Notify Contracting Officer prior to performing preliminary testing. Contractor shall conduct the following tests during installation of wiring and system components. Any deficiency pertaining to these requirements shall be corrected by the Contractor prior to final acceptance testing of the system. Record results of testing. Submit all test results to the Contracting Officer.

a. Ground Resistance: Prior to connecting control panel and transmitter, test grounds for ground resistance value. Use a portable ground testing megger to test each ground or group of grounds. Make ground resistance measurements in normally dry weather, not less than 48 hours after a rainfall. Follow the directions provided by the equipment manufacturer for proper use of the equipment. Measure resistance of each connection to ground. Resistance of each connection to ground shall not exceed 30 ohms.:

b. Operation of Entire System. Operate all initiating and indicating devices.

3.2.2 Final Acceptance Testing: The Contractor shall notify the Contracting Officer when the system is ready for final acceptance testing. Request scheduling for final acceptance testing only after all necessary preliminary tests have been made and all deficiencies found have been corrected to the satisfaction of the equipment manufacturer's technical representative and the Contracting Officer, and written certification to this effect has been received by the Fire Protection Engineer. The system shall be in service at least 15 calendar days prior to final acceptance testing. The Contractor shall allow at least 15 calendar days between the date final testing is requested and the date the final acceptance testing takes place. The Contractor shall furnish all appliances, equipment, instruments, devices and personnel for this test. Furnish a minimum of three two-way radios plus one additional radio for each remote annunciator, all operating on the same frequency. The system shall be tested for approval in the presence of representatives of the manufacturer, the Contracting Officer, and the Fire Protection Engineer. All necessary tests shall be made including the following, and any deficiency found shall be corrected and the system retested.

3.2.2.1 Entire System: Test the entire system by operating all fire alarm initiating, notification, and signaling devices. Perform tests with the system operating on primary power and repeat the test with the system operating on battery power only.

3.2.3 Additional Tests: When deficiencies, defects or malfunctions develop during the tests required, all further testing of the system shall be suspended until proper adjustments, corrections or revisions have been made to assure proper performance of the system. If these revisions require more than a nominal delay, the Contracting Officer shall be notified when the additional work has been completed, to arrange a new inspection and test of the fire alarm system. All tests required shall be repeated prior to final acceptance, unless directed otherwise.

*** END OF SECTION ***

DIVISION 15

MECHANICAL

SECTION 15050

BASIC MECHANICAL MATERIALS AND METHODS

PART 1 - GENERAL:

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Code of Federal Regulations (CFR):

29 CFR 1910.147 Control of Hazardous Energy (Lockout/Tagout)

1.2 RELATED REQUIREMENTS: This section applies to all sections of Division 11 “Equipment”, and Division 15 "Mechanical" of this project specification unless specified otherwise in the individual sections.

1.3 QUALITY ASSURANCE: Material and Equipment Qualifications: Provide materials and equipment that are standard products of manufacturers regularly engaged in the manufacture of such products, which are of a similar material, design and workmanship. Standard products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been for sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2 year period.

1.3.1 Alternative Qualifications: Products having less than a two-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours. Exclusive of the manufacturer's factory or laboratory tests, can be shown.

1.3.2 Service Support: The equipment items shall be supported by service organizations. Submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications. These service organizations shall be reasonably convenient to the equipment installation and able to

render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

1.3.3 Manufacturer's Nameplate: Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

1.3.4 Modification of References: In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction", or words of similar meaning, to mean the Contracting Officer.

1.4 DELIVERY, STORAGE, AND HANDLING: Handle, store, and protest equipment and materials to prevent damage before and during installation in accordance with the manufacturer's recommendations, and as approved by the Contracting Officer. Replace damaged or defective items.

1.5 SAFETY REQUIREMENTS:

1.5.1 Equipment Safety: Provide positive means of locking out equipment so that equipment cannot be accidentally started during maintenance procedures. High-temperature equipment and piping so located as to endanger personnel or create a fire hazard shall be properly guarded or covered with insulation of the type specified. Ensure that access openings leading to equipment are large enough to carry through routine maintenance items such as filters and tools.

1.5.2 Lockout of Energy Sources: Provide appropriate lockout devices for energy isolating valves and for machines or other equipment to prevent unexpected start-up or release of stored electrical, mechanical. Hydraulic, pneumatic, thermal, chemical, or other energy in accordance with 29 CFR 1910.147. Lockout devices for valves shall provide a means of attachment to which, or through which, a lock can be affixed or shall have a locking mechanism built into it so that the valve cannot be moved from the lockout position until the lock is removed, Electrical isolation of machines or other equipment shall be in accordance with requirements of DIVISION 16 "Electrical."

1.6 ELECTRICAL REQUIREMENTS: Provide electrical components of mechanical equipment and systems such as motors, controllers, contactors, and disconnects under Division 15, as specified herein, and as necessary for complete and operable systems.

1.7 ACCESSIBILITY: Install all work so that parts requiring periodic inspection, operation, maintenance, and repair are readily accessible. Install concealed valves, expansion joints, controls, dampers, and equipment requiring access, in locations freely accessible through access doors.

PART 2 - PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

*** END OF SECTION ***

SECTION 15080

MECHANICAL INSULATION

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Japanese Industrial Standards (JIS):

A 9501-01	(JTIA/JSA) Standard Practice for Thermal Insulation Works
A 9504-99	Man Made Mineral Fiber Thermal Insulation Materials
A 9511-95	Preformed Cellular Plastics Thermal Insulation Materials
G 4305-99	Cold Rolled Stainless Steel Plates, Sheets and Strip
H 4160-94	Aluminum and Aluminum Alloy Foils
R 3414-99	Textile Glass Fabrics
R 3415-95	Textile Glass Tapes

1.1.2 Heating, Air-conditioning and Sanitary Standard (HASS) published by The Society of Heating, Air-conditioning and sanitary Engineers of Japan:

HASS 010-93	Heating, Air-conditioning and Sanitary Standard Specification

1.2 GENERAL REQUIREMENTS: Section 15050 "Basic Mechanical Materials and Methods" and the additions and modifications specified herein applies to this specification.

1.3 MANUFACTURER'S STAMP OR LABEL: Every package or standard container of insulation, jackets, cement, adhesives, and coatings delivered to the project site for use must have the manufacturer's stamp or label attached giving name of manufacturer, brand, and description of material. Insulation packages and containers shall be asbestos-free.

PART 2 - PRODUCTS

2.1 PIPING SYSTEMS INSULATION: Apply cylindrical type glass wool insulation, conforming to JIS A 9504, on new hot water piping, cold water piping and path duct systems, total heat recovery type ventilating duct system, and A/C duct system. Insulation thickness shall conform to HASS 010, unless otherwise indicated on drawings. Provide vapor barrier sheet on cold water piping and ducts. Apply JIS A 9511, polyethylene insulation, with protection tape finish on new A/C refrigerant piping entirely. Provide refrigerant piping system as specified in Section 15653 "Air Conditioning System." Provide heat endurance polyethylene foamed insulation on new A/C drain pipes in building, except pipe fittings passing through fire stopped walls.

2.1.1 Plumbing Water Insulation Finishes:

2.1.1.1 Vapor-Barrier Material: Paragraph 2.9.2.(2) of HASS 010. Provide vapor-barrier material on A/C drain and cold water piping.

2.1.1.2 Metal Jackets: Provide a moisture-barrier lining for metal jackets located outside. JIS G 4305, type 304, 0.3 mm thick, smooth.

2.1.1.3 Glass Cloth Finish: Apply glass cloth finish on piping systems located inside the buildings.

2.1.2 A/C Piping Insulation Finishes:

2.1.2.1 Plastic Decoration Cover: Provide plastic decoration cover on A/C refrigerant piping located outside the building.

2.1.2.2 Protection Tape: Provide finish tape on A/C refrigerant piping and electrical wiring as indicated. Self adhesive tape as recommended by the insulation manufacturer.

2.2 DUCT INSULATION:

2.2.1 Rectangular Duct Insulation: Provide insulation on new duct, volume dampers, and grilles.

2.2.1.1 Insulation: Insulation with aluminum foil, 15mm thick, ALGC "hoontai" JIS A 9504 glass wool, 40kg/m^3.

2.2.2 Insulated Flexible Round Duct: Manufacturer insulation flexible duct as specified in Section 15840 "Ductwork and Fans."

2.2.3 Aluminum Glass Tape: HASS 010, Chater-1, Paragraph 2.9.2.

2.3 EQUIPMENT: Factory insulated electric hot water storage heaters, A/C units, and total heat recovery type ventilators.

2.4 ADHESIVES, SEALANTS, AND COATING COMPOUNDS: Shall conform to JIS A 9501 and HASS 010.

2.5 ACCESSORIES:

2.5.1 Staples: Galvanized steel staples out side-clinch type.

2.5.2 Insulation Bands: 20 mm wide; 0.5-mm thick stainless-steel.

2.5.3 Bands for Metal Jackets: 10-mm width; 0.5-mm stainless-steel.

2.5.4 Anchor Pins: Provide anchor pins and speed washers recommended by the insulation manufacturer.

2.5.5 Glass Cloth and Tape: JIS R 3414, Type EP 21C, (cloth) and R 3415 (tape).

2.5.6 Wire: Soft annealed stainless steel, 1.2-mm nominal diameter.

2.5.7 Pressure Sensitive Vapor Seal Tape: Aluminum tape with adhesive, aluminum foil shall be conform to JIS H 4160.

2.5.8 Vapor-Barrier Material: Par. 7.2.4 of JIS A 9501.

2.5.9 Vapor Barrier Coating Compound: Recommended by the manufacturer of the vapor barrier jacket.

PART 3 - EXECUTION

3.1 GENERAL: Apply insulations in accordance with HASS 010 and JIS A 9501.

3.2 PIPING INSULATION:

3.2.1 Preparation: Allow adequate space for pipe expansion. Install insulation in accordance with the insulation manufacturer instruction. Install decoration covers in accordance with the manufacturer instructions. Do not use scrap pieces where a full length section will fit. Insulation shall be continuous through sleeves, wall and ceiling openings, except A/C drain piping passing through draft stopped wall.

3.2.2 Insulation: JIS A 9501. Place sections of insulation around the piping and ducting tightly butted into place.

3.2.3 Hangers and Supports: Pipe insulation shall be continuous through hangers and supports.

3.3 FIELD INSPECTION: Visually inspect to ensure that materials provided conform to specifications. Inspect installations progressively for compliance with requirements.

*** END OF SECTION***

SECTION 15400

PLUMBING SYSTEMS

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 AMERICAN WATER WORKS ASSOCIATION (AWWA)

AWWA C651	(1992) Disinfecting Water Mains

1.1.2 INTERNATIONAL CODE COUNCIL (ICC)

ICC IPC	(1995; Supp. 1996) International Plumbing Code

1.1.3 Japanese Industrial Standards (JIS):

A 5207-00	Sanitary Wares
B 2011-01	Bronze Gate, Glove, Angle and Check Valves
B 2303-95	Screwed Drainage Fittings
G 3442-97	Galvanized Steel Pipes for Ordinary Piping
G 3452-97	Carbon Steel Pipes for Ordinary Piping
G 3555-83	Woven Wire Cloth
G 5501-95	Gray Iron Castings
K 6739-99	Unplasticized Polyvinyl Chloride Pipe Fittings for Drain
K 6741-99	Unplasticized Polyvinyl Chloride (PVC) Pipes
K 6742-99	Unplasticized Polyvinyl Chloride (PVC) Pipes for Water Works

1.1.4 Japan Water Works Association (JWWA) Publications:

K 116-72	Unplasticized Polyvinyl Chloride Lining Steel Pipes for Water Works
K 140-96	Unplasticized Polyvinyl Chloride Lining Pipe for Hot Water Works

1.1.5 Japanese Pipe Fitting Association (JPF) Publications:

MP-003	Core Type Threaded Fittings for Lining Steel Pipe for Water Works
MP-012	Heat Resistant Unplasticized Polyvinyl Chloride Lining Core Type Threaded End Fittings

1.1.6 Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR)

FCCCHR-USC List of Approved Backflow Prevention Assemblies

1.1.7 Department of Defense Japan Environmental Governing Standards (JEGS) issued by Headquarters, U.S. Forces Japan Tokyo.

1.2 RELATED REQUIREMENTS: Section 15050, "Basic Mechanical Materials and Methods," applies to this section with the additions and modifications specified herein.

1.3 SYSTEM DESCRIPTION: Provide new plumbing systems, complete and ready for operation. Plumbing systems including manufacturer's products shall be in accordance with the required and advisory provisions of the ICC IPC. Plumbing systems include piping less than 0.50 meters outside of building walls.

1.4 SUBMITTALS: Submit the following in accordance with Section entitled "Submittal Procedures."

1.4.1 SD-02, Manufacturer's Catalog Data

a. Pipe and fittings
b. Valves
c. Pressure reducing valves
d. Backflow preventers
e. Plumbing fixtures
f. Electric hot water storage heater
g. Toilet accessories

1.4.2 SD-19, Operation and Maintenance Manuals:

a. Electric hot water storage heater
b. Pressure reducing valves
c. Backflow preventers

1.4.3 SD-12, Backflow Preventers Test Report: A copy of the test report shall be provided to the Contracting Officer prior to placing the domestic water system into operation, or no later than 5 days after the test.

1.5 quality assurance: Plumbing systems including fixtures, equipment, materials, installation, and workmanship shall be in accordance with the Plumbing Code except as modified herein. In the Plumbing Code referred to herein, the advisory provisions shall be

considered to be mandatory, as though the word "shall" had been substituted for the word "should" wherever it appears; reference to the "authority having jurisdiction," the Administrative Authority, the Plumbing Official, and the Design Engineer shall be interpreted to mean the Contracting Officer. Capacity of equipment shall be not less than that indicated.

PART 2 - PRODUCTS

2.1 DRAIN, WASTE WATER, AND VENT PIPE AND FITTINGS: Fittings shall be long radius fittings, except fittings in vent piping may be short radius fittings.

2.1.1 Pipe and Fittings (Except Electric Hot Water Storage Heater Drain):

a. Pipe: PVC pipe, type VP, conforming to JIS K 6741 or K 6742.

b. Fittings: PVC fitting, JIS K 6739.

2.1.2 Drain Pipe and Fitting for Electric Hot Water Storage Heater:

a. Pipe: Lining galvanized steel pipe conforming to JWWA K 140. SGP-HVA.

b. Fitting: Core end fittings conforming to JPF MP 012.

2.1.3 Drain Pipe for Washer:

a. Pipe Galvanized steel pipe, conforming to JIS G 3452.

b. Fittings: Drainage fitting, conforming to JIS B 2303.

c. Adapter: PVC to steel pipe adapter, as recommended by the PVC pipe manufacturer.

2.1.4 Floor Drain: Provide cast-iron or ductile-iron drains and clamping rings for use with membrane waterproofing. Provide P-traps for each floor drain. Provide with double drainage flange, perforated or slotted polished stainless steel or chromium-plated copper alloy strainer, and adjustable collar.

2.1.5 Clean Out: Provide adjustable height floor cleanout for PVC drain pipe with chromium-plated copper alloy rim and scoriated floor

plate with “CO” cast in the plate, and countersunk screws for installing floor plate flush with finished floor.

2.1.6 Indirect Drain: Cast iron hopper and P-trap. Use steel pipe conforming JIS G 3452 SGP, as indicated on drawing.

2.2 DOMESTIC WATER PIPING: Do not use solders, brazing, flux, and containers, exceeding 0.2 percent lead content, inside of domestic water piping, fixtures, and equipment.

2.2.1 Cold Water and Hot Water Piping:

a. Cold Water Pipe: JWWA K-116, SGP VA.

b. Cold Water Fitting: Core end fittings, JPF MP-003.

c. Hot Water Pipe: JWWA K-140, SGP HVA.

d. Hot Water Fitting: Core end fittings, JPF MP-012.

e. Unions: PVC lining union, suitable for intended service.

2.2.2 Reduced Pressure Backflow Preventer: Reduced pressure principle type. Furnish proof that each make, model/design, and size of backflow preventer being furnished for the project is approved by and has a current “Certificate of Approval” from the FCCCHR-USX. Listing of the particular make, model/design, and size in the current FCCCHR-USC will be acceptable as the required proof.

2.2.3 Dual-check Backflow Preventes: Non-health hazard continuous pressure applications. Female inlet and male outlet connection. Bronze body construction. Shall have tow compact replaceable check modules, with Buna-N seals and stainless steel springs. Can be installed horizontally or vertically.

2.2.4 Water Valves: Provide valves suitable for minimum of 860 kPa (gage). Provide hot water valves suitable for minimum of 82 degrees C.

2.2.4.1 Gate Valves: JIS B 2011, Class 10K, core type threaded end joint.

2.2.4.2 Pressure Reducing Valves: As indicated on drawing.

2.3 MISCELLANEOUS PIPING MATERIALS:

2.3.1 Escutcheon Plates: Provide One piece or split hinge metal plates for piping entering floors, walls, and ceilings in exposed

spaces. Provide chromium-plated or polished stainless steel finish on copper alloy plates in finished spaces.

2.3.2 Pipe Sleeves:

2.3.2.1 Sleeves: JIS G 3442, hot-dip galvanized steel pipe sleeves.

2.3.3 Pipe Supports: Provide saddle type pipe supports for piping in wall.

2.3.4 Insect Screen for Vent Piping: Woven stainless steel wire cloth, JS G 3555 PW-S. Provide insect screen at each end of vent pipe.

2.3.5 Vent Cap: Cast iron conforming to JIS G 5501, FC 150. Threaded connection.

2.3.6 Adapter for Vent Cap: Steel pipe to PVC pipe adapter.

2.4 FIXTURES, FITTINGS, ACCESSORIES, AND SUPPLIES: Provide control-stop valves in each supply to each fixture. The finish of fittings, accessories, and supplies exposed to view shall be chromium-plated.

2.4.1 Plumbing Fixtures:

a. Kitchen Sink (System Kitchen): As specified in Section 06200 “Wood and Plastics.”

b. Lavatory: Ceramic bowl lavatory as indicated. Provide single lever type mixing faucet per lavatory. JIS A 5207, L420.

c. Water Closet: Western style, siphon jet type water closet conforming to JIS A 5207, C1110. Provide water saving flush valve with vacuum breaker.

d. Urinal: Stall type, urinal, JIS A 5207, U321R.

e. Slop Sink: JIS A 5207, S 210.

f. Shower Set: Thermostat type mixing valve with fixed shower head (swivel type) and bottom faucet.

2.4.2 Toilet Accessories:

a. Mirror for Lavatory: Wall mounted type mirror, as indicated.

b. Glass Self for Lavatory: Manufacturer supplied of glass shelf with fasteners.

c. Mirror for Dressing Table: Wall mounted type mirror, as indicated.

d. Paper Holder for Water Closet: Wall mounted type, stainless steel paper holder as indicated on drawing.

e. Paper Towel Dispenser: plastic dispenser as indicated.

f. Soap Dish: Wall mounted type, ceramic dish as indicated.

2.4.3 Fittings for Sanitary Wares: JIS A 5514.

2.5 equipment:

2.5.1 Electric Hot Water Storage Heaters: As indicated. Provide temperature/pressure relief valve and automatic air vent for electrical hot water storage heater.

PART 3 - EXECUTION

3.1 INSTALLATION: Installation of plumbing systems including fixtures, equipment, materials, and workmanship shall be in accordance with the Plumbing Code, except as modified herein. When fixtures require both hot water and cold water supplies, provide the hot water supply to the left of the cold water supply.

3.1.1 Threaded Connections: Jointing compound for pipe threads shall be polytetrafluoroethylene (PTFE) pipe thread paste, pipe cement and oil, or PTFE powder and oil; apply only on male threads. Provide exposed ferrous pipe threads with one coat of primer applied to a minimum dry film thickness of 0.025mm.

3.1.2 Pipe Supports: Provide additional supports at the concentrated loads in piping between supports, such as for flanged valves.

3.1.2.1 Piping to Receive Insulation: Provide temporary wood spacers between the insulation protection shield and the pipe in order to properly slope the piping and to establish final elevations. Temporary wood spacers shall be of the same thickness as the insulation to be provided under Section 15080, "Mechanical Insulation."

3.1.2.2 Maximum Spacing Between Supports

a. Vertical Piping: Support metal piping at each floor, but at not more than 3 meters intervals, with pipe riser clamps or offset pipe clamps.

b. Horizontal Piping: Support steel piping as follows;

MAXIMUM SPACING (METERS)

Nominal Pipe Size (mm)	25 and under	32	40
Steel Pipe	2	2.5	2.75 (meters)

3.1.3 Installation of Pipe Sleeves: Provide pipe sleeves as indicated. Secure sleeves in proper position and location during construction. Provide sleeves of sufficient length to pass through entire thickness of walls. Provide not less than 6 mm space between exterior of piping or pipe insulation and interior of sleeve. Firmly pack space with mineral wool insulation. Seal at both ends of the sleeve with plastic waterproof cement which will dry to a firm but pliable mass, or provide a segmented elastomeric seal.

3.2 NAMEPLATES: Provide laminated plastic nameplates for equipment, gages, thermometers, and valves; stop valves in supplies to fixtures will not require nameplates. Laminated plastic shall be 3 mm thick melamine plastic, black with white center core. Surface shall be a matte finish. Corners shall be square. Accurately align lettering and engrave into the white core. Minimum size of nameplates shall be 25 by 65 mm. Lettering shall be minimum of 6 mm high normal block lettering. Equipment nameplates shall show the following information:

a. Manufacturer, type, and model number
b. Contract number and accepted date
c. Capacity or size
d. System in which installed
e. System which it controls

3.3 FIELD QUALITY CONTROL

3.3.1 Inspections: Prior to initial operation, inspect piping system for compliance with drawings, specifications, and manufacturer's submittals.

3.3.2 Field Testing: Before final acceptance of the work, test each system as in service to demonstrate compliance with the contract

requirements. Perform the following tests in addition to the tests specified in the Plumbing Code, except as modified herein. Correct defects in the work provided by the Contractor, and repeat tests until work is in compliance with contract requirements. Furnish water, electricity, instruments, connecting devices, and personnel for performing tests.

3.3.2.1 Domestic Water Piping: Before applying insulation, hydrostatically test each piping system at not less than 690 kPa (gage) or system working pressure with no leakage or reduction in gage pressure for 2 hours.

3.3.2.2 DWV Piping: Before the installation of fixtures, cap ends of each system, fill piping with water to the highest point, and allow to stand until a thorough inspection has been made. If the system is tested in sections, each opening shall be plugged and each section tested with not less than a 30 kPa head of water. After plumbing fixtures have been set and their traps filled with water, subject the entire sanitary system to a final air pressure test of not more than 249 Pa of water column and a smoke or peppermint test. Perform the air and smoke test with an approved smoke testing machine, which shall show a clear passage of smoke and air throughout the entire system. The entire system shall be proven absolutely tight under such test.

3.3.2.3 Backflow Preventers Test Report: Backflow preventer shall be tested by the Government authorized backflow assembly tester (PWC Code 106). The Contractor shall obtain certificate from the Government authorized backflow assembly tester. A copy of the test report shall be provided to the Contracting Officer prior to placing the domestic water system into operation, or no later than 5 days after the test.

3.4 DISINFECTION: Disinfect new water piping and existing water piping affected by Contractor's operations in accordance with AWWA C651. Fill piping systems with solution containing minimum of 50 milligram per kilogram (parts per million (ppm)) of available chlorine and allow solution to stand for minimum of 4 hours. Flush solution from the systems with domestic water until the content of maximum residual chlorine or residual domestic water supply is within the range of 0.2 to 0.5 ppm. Obtain at least two consecutive satisfactory bacteriological samples from new water piping, analyze by a certified laboratory listed on List of Testing Laboratories (“Zen-koku Shiken Kenkyu Kikan Meikan”), and submit the results prior to the new water piping being placed into service. Disinfections of systems supplied by nonpotable water is not required. Do not discharge chlorine solution which exceed the rate of Direct Discharge Waste Water written in JEGS.

*** END OF SECTION ***

SECTION 15653

AIR CONDITIONING SYSTEM

PART 1 - GENERAL

1.1 REFERENCES: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto.

1.1.1 American National Standards Institute (ANSI) Publications:

B9.1 (1997)Safety Code for Mechanical Refrigeration
ASME/ANSI B31.5(1992; Errata 1993) Refrigeration Piping

1.1.2 Japanese Industrial Standards (JIS):

A 5540-82	Turnbuckle for building
A 9511-95	Preformed Cellular Plastics Thermal Insulation Material
B 8607-99	Flare Type and Brazing Type Fittings for Refrigerant
B 8620-94	Safety Code for Small Refrigerating Equipment
G 3191-66	Dimensions, Weight and Permissible Variations of Hot Rolled Steel Bars and Bar in Coil
H 3300-97	Copper and Copper Alloy-Seamless Pipes and Tubes
K 6742-99	Unplasticized Polyvinyl Chloride Pipes for Water Works Service
K 6743-99	Unplasticized Polyvinyl Chloride Pipe Fittings for Water Works
Z 3621-92	Recommended Practice for Brazing
Z 3891-90	Standard Qualification Procedure for Silver Brazing Technique

1.1.3 Heating, Air-Conditioning and Sanitary Standards (HASS):

HASS 010	Heating, Air-Conditioning and Sanitary Standard Specification

1.1.4 Fire-Resistive Dual Pipes Association(FDPA) Publication:

Standard Specification for Fire-Resistive Dual Pipe Products

1.2 GENERAL REQUIREMENTS: Section entitled "Basic Mechanical Materials and Methods", applies to this section, with the additions and modifications specified herein.

1.2.1 Safety Standards:

1.2.1.1 Machinery Guards: Fully guard drive mechanisms, or other moving parts in accordance with ANSI B15.1. Provide guards fabricated of steel and expanded metal, rigidly mounted, and readily removed without disassembly.

1.2.2 Corrosion Prevention: Air conditioning (A/C) outside unit shall be coated for outside use at the manufacture.

1.3 SUBMITTALS: As soon as practicable and before installation or procurement of mechanical materials and equipment, the contractor shall submit for approval all necessary shop drawings and catalog cuts for the following items:

1.3.1 SD-02, Catalog Cuts: Submit catalog cuts for following;

a. Air cooled multiple type heat pump air conditioning system.

b. Air cooled type heat pump air conditioning system)for outside air conditioningsystem)

1.3.2 SD-19, Operation and Maintenance Manuals:

a. Air cooled multiple type heat pump air conditioning system.

b. Air cooled type heat pump air conditioning system)for outside air conditioningsystem)

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT: Materials and equipment shall conform to the respective specifications, standards and other requirements specified below. Materials and equipment not otherwise specified herein shall be approved commercial products and suitable for the intended purpose.

2.1.1 Pipes and Fittings:

2.1.1.1 Refrigerant Gas Piping and Liquid Piping: Copper pipe with polyethylene insulation. Pipe shall conform to JIS H 3300, seamless

copper pipes, type C l220. Provide polyethylene foam insulation conforming to JISA 9511, PE-C-P2 as indicated. Fittings shall conform to JIS B 8607.

2.1.1.2 A/C Drain Pipes:

a. Pipe: JIS K 6742, PVC Pipes.

b. Fitting: Shall be PVC fittings conforming to JIS K 6743.

c. Fitting for Draft Stopped Wall Penetration: Fiber reinforced mortar lining PVC pipe fitting, conforming to FDP fittings ("Taika Nijyu-kan Tsugite").

2.2 EQUIPMENT:

2.2.1 Air Cooled Multiple Type Heat Pump Air Conditioning (A/C) System: As indicated on drawing. Materials used in construction of refrigerating machine shall be suitable for purpose intended and those coming in contract with refrigerant shall be highly resistant to corrosion by the refrigerant. Principal parts shall be standard products of a reputable refrigerating machine manufacture. Minor accessories and piping, not produced by manufacturer shall be in accordance with refrigerant machine manufacturer's standard practice and specific recommendations.

2.2.1.1 Outside Unit: As indicated, anti sea breeze type "En-gai shiyou." Provide manufacturer standard accessories as indicated.

2.2.1.2 Inside nits: As indicated on drawing. Provide manufacturer's standard accessories, decoration panel, long life filter, and wired remote controller.

2.2.1.3 Refrigerant Gas: Do not provide air conditioning systems containing refrigerant with Ozone Depleting Substances (ODS) of more than zero.

2.2.2 Air Cooled Type Heat Pump Air Conditioning (A/C) System: Air conditioning system for outside air conditioning as indicated on drawing. Materials used in construction of refrigerating machine shall be suitable for purpose intended and those coming in contract with refrigerant shall be highly resistant to corrosion by the refrigerant. Principal parts shall be standard products of a reputable refrigerating machine manufacture. Minor accessories and piping, not produced by manufacturer shall be in accordance with refrigerant machine manufacturer's standard practice and specific recommendations.

2.2.2.1 Outside Unit: As indicated, anti sea breeze type “En-gai shiyou.” Provide manufacturer standard accessories as indicated.

2.2.2.2 Inside nits: As indicated on drawing. Provide manufacturer’s standard accessories, long life filter with filter box, wired remote controller, supply air chamber, and no condensation (“Ketsuro boushi gata”) slit type line diffusers.

2.2.2.3 Refrigerant Gas: Do not provide air conditioning systems containing refrigerant with Ozone Depleting Substances (ODS) of more than zero.

2.2.3 Concrete Foundation: As specified in Section 03300 "cast in place concrete." Apply steel toweled finish. Chamfer above grade exposed joints, edges, and external corners of concrete 20 mm unless otherwise indicated.

2.2.3.1 Rubber Pad: Chloroprene rubber sheet, 5mm thick as indicated.

2.3 pipe hanger:

2.3.1 Stud Bolt: Full thread steel rods, conforming to JIS G 3191, Class SS 400.

2.3.2 Turnbuckle: JIS A 5540.

2.3.3 Clamp: Split type clamp, galvanized steel.

2.4 MISCHELLANEOUS PIPING MATERIALS:

2.4.1 Soft Solder: JIS Z 3621 or JIS Z 3891.

PART 3 - EXECUTION

3.1 INSTALLATION: Application and installation practices for unitary air-conditioning system shall conform to the requirements of HASS 010 and manufacturers’ instructions.

3.1.1 General: Install equipment and components in a manner to insure proper and sequential operation of the equipment and its controls. Installation of equipment not covered herein or in manufacturer's instructions shall be installed as recommended by manufacturer's representative.

3.1.2 Air-Conditioning System: Install system as indicated, in accordance with the requirements of HASS 010, and as recommended in the manufacturers' installation and operational instructions.

3.1.2.1 Concrete Foundations: provide proper concrete foundations for mounting of outside units as indicated. Locate concrete foundations on the existing column to bear the center of outside units' gravity. Level outside unit bases, using jacks or steel wedges. Provide electric isolation between dissimilar materials for the purpose of minimizing galvanic corrosion.

3.1.3 Electrical Work: Electric motor driven equipment specified herein Electrical equipment and wiring shall be in accordance with section 16402 entitled, "Interior Distribution Systems."

3.1.4 Piping: Brazing, JIS Z 3621, bending, forming and assembly of refrigerant piping shall conform to ANSI B31.5. Refrigerant piping shall also conform to ANSI B9.1 or JIS B 8620.

3.1.4.1 Steel Hangers and Supports: Design and fabrication of supports, and welding attachments shall be as indicated.

3.1.4.2 Refrigerant Piping: Cut pipe accurately to measurements established at the site and work into place without springing or forcing. Install piping with sufficient flexibility to adequately provide for expansion and contraction due to temperature fluctuation inherent in its operation. Except where specifically indicated otherwise, run piping plumb and straight and parallel to walls and ceilings. Provide sleeves of suitable size for all lines passing through building structure. Braze refrigerant piping with specified solder. The inside of tubing and fittings shall be free of flux. Clean the parts to be jointed with emery cloth and keep hot until the solder has penetrated the full depth of the fitting and the extra flux has been expelled. Cool joints in air and remove flame marks and traces of flux. During the brazing operation, prevent an oxide film from forming on the inside of the tubing by slowly flowing dry nitrogen to expel the air.

3.2 FIELD TESTS AND INSPECTIONS:

3.2.1 Tests: All tests shall be performed and materials and equipment required for test shall be furnished by the Contractor. Tests after installation and prior to acceptance shall be performed in the presence of a representative of the Contracting Officer and subject to his approval. Equipment and material certified as having been successfully tested by the manufacturer in accordance with

referenced specifications and standards will not require retesting before installation. Equipment and materials not tested at the place of manufacturer will be tested before or after installation, as applicable, where necessary to determine compliance with referenced specifications and standards.

3.2.1.1 Leak Testing: Upon completion of installation of the air conditioning equipment, test all factory as well as field refrigerant piping with an electronic-type leak detector to acquire a leak tight refrigerant system. If leaks are detected at the time of installation or during the guarantee period, remove the entire refrigerant charge from the system, correct the leaks and retest the system.

3.2.1.2 Additional Charging: After system is found to be without leaks, charge additional refrigerant gas in accordance with the manufacturers recommendation.

3.2.1.3 Start-up and Operation Tests: The air-conditioning system and its components shall be started and initially placed under operation and checked to see that it is functioning correctly. Adjust safety and automatic control instruments as necessary to place them in proper operation and sequence. The operational test shall be not less than 8 hours.

*** END OF SECTION ***

SECTION 15840

EXHAUST FANS AND DUCTWORK

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 National Fire Protection Association (NFPA) Publication:

90A-85	Installation of Air Conditioning and Ventilating Systems

1.1.2 Heating, Air-conditioning and Sanitary Standard (HASS) published by The Society of Heating, Air-conditioning and sanitary Engineers of Japan:

HASS 010	Heating, Air-conditioning and Sanitary Standard Specification

1.1.3 Japanese Industrial Standards (JIS):

A 4009-97	Components of Air Duct
A 5540-82	Turnbuckle for Building
G 3191-66	Dimensions, Weight and Permissible Variations of Hot Rolled Steel Bars and Bar in Coil
G 3302-98	Hot-Dip Zinc-Coated Steel Sheets and Coils

1.2 GENERAL REQUIREMENTS: Section "Basic Mechanical Materials and Methods," applies to this section with the additions and modifications specified herein.

1.3 SUBMITTALS:

1.3.1 SD-02, Catalog Cuts:

a. Total heat recovery type ventilator and accessories.
b. Ceiling mounted type exhaust fans and accessories.

1.3.2 SD-19, Operation and Maintenance Manuals:

a. Total heat recovery type ventilator and accessories.
b. Ceiling mounted type exhaust fans and accessories.

1.3.3 SD-12, Field Test Report:

a. Ceiling mounted exhaust fans.

PART 2 - PRODUCTS

2.1 DUCTS:

2.1.1 Rectangular Steel Ducts: JIS A 4009. Apply field paint as specified in Section 09900 “Paints and Coatings.”

2.1.1.1 Galvanized Steel Sheets: JIS G 3002, SPGC, Z 27.

2.1.2 Round Duct: Spiral ducts, JIS G 3302, 0.5 mm thick.

2.1.3 Flexible Connection: Glass cloth laminated fabric, as indicated.

2.1.4 Flexible Round Duct for Fryer: Hand bendable, semi-rigid helical corrugation type, thin wall aluminum duct.

2.2 GRILLE:

2.2.1 Path Duct Grilles: Fixed vane type aluminum grille, as indicated.

2.3 FIRE DAMPERS: UL listed steel fire damper suitable for intended service.

2.4 HANGERS:

2.4.1 Stud Bolt: Steel rods, conforming to JIS G 3191, Class SS-400, with thread end. Turnbuckle: JIS A 5540.

2.4.2 Turnbuckle: JIS A 5540.

2.4.3 Duct Clump: Galvanized steel duct clump, split type as indicated.

2.5 FANS:

2.5.1 Total Heat Recovery Type Ventilator: Heat recovery type ventilators as indicated. Provide manufacturer standard accessories as indicated on drawing.

2.5.2 Ceiling Mounted Type Exhaust Fans: As indicated. Provide manufacturer standard accessories as indicated on drawing.

2.5.3 Vent Cap: Stainless steel vent cap with stainless steel insect screen.

PART 3 - EXECUTION

3.1 INSTALLATION:

3.1.1 Ducts: Installation shall conform to JIS A 4009, NFPA 90A, and SMACNA HVACDCS. Provide mounting and supporting of ductwork and accessories including, but not limited to, structural supports, hangers, vibration isolators, stands, clamps and brackets, access doors, and dampers.

3.1.2 Insulation: Insulate all new A/C ducts systems, total heat recovery type ventilator duct systems, and path duct systems, as specified in Section 15080 “Mechanical Insulation.”

3.2 TESTS AND INSPECTIONS:

3.2.1 Ductwork: The ductwork shall be tested under normal operation and checked to see that it is functioning correctly. The operational test shall be not less than 8 hours.

3.2.2 start-up and Operation Tests: The total heat recovery type ventilator, ceiling mounted type exhaust fans and its components shall be started and initially placed under operation and checked to see that it is functioning correctly. Adjust safety and automatic control instruments as necessary to place them in proper operation and sequence. The operational test shall be not less than 8 hours.

*** END OF SECTION ***

DIVISION 16

ELECTRICAL

SECTION 16050

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 American National Standards Institute (ANSI):

ANSI C2	2002 National Electrical Safety Code

1.1.2 Federal Specifications (FS):

FS L-P-387	(Rev. A) (Int Am. 2) Plastic Sheet, Laminated, Thermosetting (for Design Plates)

1.1.3 Institute of Electrical and Electronics Engineers (IEEE):

IEEE 100	1996 Dictionary of Electrical and Electronics Terms

1.1.4 National Electrical Manufacturers Association (NEMA):

NEMA ICS 6	1996 Enclosures for Industrial Controls and Systems

1.1.5 National Fire Protection Association (NFPA):

NFPA 70	2002 National Electrical Code

1.1.6 Japanese Industrial Standard (JIS):

Z 8304-84	Design Standard for Nameplates
Z 8903-84	Standard Type of Letters Used in Mechanical Engraving (Joyo Kanji, Common-use Chinese Characters)

Z 8904-76	Standard Type of Letters Used in Mechanical Engraving (Katakana Characters)
Z 8905-76	Standard Type of Letters Used in Mechanical Engraving (Arabic Figures and Roman Types)
Z 8906-77	Standard Type of Letters Used in Mechanical Engraving (Hiragana Characters)

1.2 RELATED REQUIREMENTS: This section applies to all sections of Division 16, "Electrical," of this project specification unless specified otherwise in the individual sections.

1.3 DEFINITIONS:

a. Unless otherwise specified or indicated, electrical and electronics terms used in these specifications, and on the drawings, shall be as defined in IEEE 100.

b. The technical sections referred to herein are those specification sections that describe products, installation procedures, and equipment operations and that refer to this section for detailed description of submittal types.

c. The technical paragraphs referred to herein are those paragraphs in PART 2 -PRODUCTS and PART 3 -EXECUTION of the technical sections that describe products, systems, installation procedures, equipment, and test methods.

1.4 DESIGN REQUIREMENTS: Electrical characteristics for this project shall be as indicated.

1.5 SUBMITTALS: Submittals shall be specified in Section 01330, "Submittal Procedures", unless otherwise specified hereinafter.

1.6 QUALITY ASSURANCE:

1.6.1 Material and Equipment Qualifications: Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship. Products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year period shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have

been on sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2-year period.

1.6.2 Regulatory Requirements: Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory provisions of NFPA 70.

1.6.3 Alternative Qualifications: Products having less than a 2-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturers' factory or laboratory tests, is furnished.

1.6.4 Service Support: The equipment items shall be supported by service organizations which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract. Where two or more items of the same class of equipment are required, these items shall be products of a single manufacturer; however, the component parts of the item need not be the products of the same manufacturer unless stated in the technical section.

1.6.5 Manufacturer's Nameplate: Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable. Letter for manufacturer's nameplate shall be written in English and Japanese.

1.6.6 Modification of References: In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction," or words of similar meaning, to mean the Contracting Officer.

1.7 NAMEPLATES: JIS Z 8304 or FS L-P-387. Provide nameplates for each panelboard, breaker box, equipment enclosure, switch, and device. Each nameplate inscription shall identify the function and, when applicable, the position. Nameplate shall be engraved black lettering on white plastic material, unless otherwise specified or indicated. Paper material will not be permitted. Copper, copper alloy, stainless steel and aluminum will be permitted as a nameplate material. Minimum size of nameplate shall be 25 mm by 64 mm (1 by 2.5 inches). Lettering shall be written in English and Japanese and

shall conform to JIS Z 8903, Z 8904, Z 8905, and Z 8906. Lettering size shall be minimum of 6.4 mm (0.025 inch) high normal block style.

1.8 ELECTRICAL REQUIREMENTS: Electrical installations shall conform to ANSI C2, NFPA 70, and requirements specified herein.

1.8.1 Wiring and Conduit: Provide internal wiring for components of packaged equipment as an integral part of the equipment. Provide power wiring and conduit for field-installed equipment under Section 16402, "Interior Distribution System." Wiring and conduit shall be provided under, and conform to the requirements of the section specifying the associated equipment.

1.9 PCB, LEAD AND ASBESTOS CONTAINING MATERIAL: Use of PCB, Lead and Asbestos containing material and devices shall not be permitted.

1.10 ECOLOGICAL WIRES AND CABLES: Eco wires and cables which are composed of only environment-friendly and ecologically sound materials that, when burnt, release minimum smoke and emit no harmful gases including dioxins or that are recyclable. All eco wires and cables shall conform to each JCS standards specified in each technical Sections in Division 16.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 PAINTING OF EQUIPMENT:

3.1.1 Factory Applied: Electrical equipment shall have factory-applied painting systems which shall, as a minimum, meet the requirements of NEMA ICS 6 corrosion-resistance test.

3.1.2 Field Applied: Paint electrical equipment as required to match finish of adjacent surfaces or to meet the indicated or specified safety criteria. Painting shall be as specified in Section 09900, "Paints and Coatings."

3.2 MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT AND MATERIALS: Unless otherwise indicated on drawings and specifications, the

locations and heights where new equipment and materials shall be installed are at the Contractor's option.

3.3 NAMEPLATE MOUNTING: Provide number, location, and letter designation of nameplates as indicated. Fasten nameplates to the device with a minimum of two sheet-metal screws or two rivets.

*** END OF SECTION ***

SECTION 16402

INTERIOR DISTRIBUTION SYSTEM

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 National Fire Protection Association (NFPA):

NFPA 70 2002 National Electrical Code

1.1.2 Federal Standard:

FED-STD-595A Colors

1.1.3 Japan Defense Facilities Administration Agency's Publication:

Japan Defense Facilities Administration Agency Electrical Construction Standard Specification ("Boheicho Denki Setsubi Kohji Kyohtsu Siyoh Sho")

1.1.4 Japanese Industrial Standards (JIS):

C 2336-99 Pressure-Sensitive Adhesive Polyvinyl Chloride Tapes for Electrical Insulation

C 2805-91 Crimp-Type Terminal Lugs for Copper Conductors

C 2806-91 Non-Insulated Crimp-Style Connecting Sleeves for Copper Conductor

C 2810-95 General Rules on Non-separable Type Wire Connectors for Interior Wiring

C 2811-95 Terminal Blocks for Industrial and Similar Use

C 3102-84 Annealed Copper Wires for Electrical Purposes

C 8303-93 Plug and Receptacles for Domestic and Similar General Use

C 8304-94 Small Switches for Indoor Use

C 8305-99 Rigid Steel Conduits

C 8309-99 Flexible Metal Conduit

C 8316-96 Flush Plates

C 8330-99 Fittings for Rigid Metal Conduits

C 8340-99 Surface Accessory for Rigid Metal Conduits

C 8350-99 Fittings for Flexible Metal Conduits

C 8370-96 Molded Case Circuit Breakers (MCCB)

C 8480-98 Box-type Swichgear Assemblies for Low-voltage Distribution Purpose

G 3101-95 Rolled Steel for General Structure

H 3100-00 Copper and Copper Alloy Sheets, Plates and Strips

1.1.5 Japanese Electric Wires and Cable Makers' Association Standard (JCS):

JCS 3416-98 600V Polyethylene Insulated Wires

JCS 4419-99 Inflammable-polyethylene Sheathed Cables for Control System

1.1.6 Law of the Government of Japan:

No. 234-1961 The Electrical Appliance and Material Control Law

1.1.7 Telecommunication Industry Association (TIA):

TIA/EIA-568-B.3 2001 Optical Fiver Cabling Components Standard

TIA/EIA-568-B.1 2001, Commercial Building Telecommunications Cabling Standard - Part1: General Requirements:

1.2 RELATED REQUIREMENTS: Section 16050, "Basic Electrical Materials and Methods," applies to this section with additions and modifications specified herein.

1.3 SUBMITTALS: Submit the following to the Contracting Officer.

1.3.1 SD-04, Drawings:

a. Panelboard
b. Breaker boxes
c. Disconnecting switch box

1.3.2 SD-12, Field Test Reports:

a. 600-volt wiring test

1.4 QUALITY ASSURANCE: In each standard referred to herein, consider the advisory provisions to be mandatory, as though the word "shall" has been substituted for "should" wherever it appears. Interpret references in these standards to "authority having jurisdiction," or words of similar meaning, to mean Contracting Officer.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT: All materials, equipment, and devices shall, as a minimum, meet the requirements of JIS where JIS Standards are established for those items, and the requirements of NFPA 70. All items shall be new unless specified or indicated otherwise.

2.2 CONDUIT AND FITTINGS:

2.2.1 Rigid Steel Conduit (Zinc-coated): JIS C 8305, threaded type and diameter of conduit shall be as indicated.

2.2.1.1 Fittings for Rigid Steel Conduit: JIS C 8330. All ferrous fittings shall be zinc-coated. Fittings shall be the threaded type.

2.2.2 Flexible Metal Conduit: JIS C 8309, class 2, vinyl covered type.

2.2.2.1 Fittings for Flexible Metal Conduit: JIS C 8350.

2.3 OUTLET AND JUNCTION BOXES: Boxes shall be zinc-coated, if ferrous metal. Provide JIS C 8340 for all conduit.

2.3.1 Receptacles: JIS C 8303, grounding-type. Ratings and configurations shall be as indicated. Wiring terminals shall be screw-type, side or back wired. Connect grounding pole to mounting strap.

2.3.2 Device Plates: JIS C 8316, one-piece device plates for outlets to suit the devices installed. For metal outlets, plates on unfinished walls shall be of zinc-coated sheet steel or cast metal having round or beveled edges.

2.3.3 Combination Outlet: Receptacles outlet, telephone outlet, and LAN outlet shall be specified in this section. Features of combination type outlet shall be as indicated.

2.4 PULL BOX: Pull box shall conform to the Standard, "Japan Defense Facilities Administration Agency Electrical Construction Standard Specification".

2.5 WIRES, CABLES AND TAPES:

2.5.1 Wires and Cables: Wires and cables shall meet applicable requirements of NFPA 70 and JIS for type of insulation, jacket, and conductor specified or indicated. All conductors shall be copper. Conductor sizes are based on copper. Wires and cables manufactured more than 12 months prior to date of delivery to site shall not be used.

2.5.1.1 Equipment Manufacturer Requirements: When manufacturer's equipment requires copper conductors at the terminations or requires copper conductors to be provided between components of equipment, provide copper conductors or splices, splice boxes, and other work required to satisfy manufacturer's requirements.

2.5.1.2 Minimum Conductor Sizes: Minimum size for branch circuits shall be 2.0 mm (No. 12 AWG); for Class 1 remote-control and signal circuits, 1.6 mm (No. 14 AWG).

2.5.2 Color Coding: Provide for service, branch, control, and signaling circuit conductors. Color shall be green for grounding conductors and white for neutrals; except where neutrals of more than one system are installed in same raceway or box, other neutral shall

be white with colored (not green) stripe. Color of ungrounded conductors in different voltage systems shall be as follows:

a. 105/210 volt, single phase: red or black.

b. 210 volt, 3-phase:

(1) Phase A - black

(2) Phase B - red

(3) Phase C - blue.

2.5.3 Insulation: Unless specified or indicated otherwise or required by NFPA 70, wires shall be JCS 3416, Type EM-IE.

2.5.4 Insulation Tape: JIS C 2336.

2.5.5 Control Cables: JCS 4419, Type EM-CEES.

2.6 SPLICES AND TERMINATION COMPONENTS: JIS C 2810, C 2806, and C 2805. Provide solderless terminal lugs on all conductors.

2.7 SWITCHES:

2.7.1 Toggle (Tumbler) Switches: JIS C 8304, totally enclosed with bodies of thermosetting plastic and mounting strap. Handles shall be brown or ivory. Wiring terminals shall be of the screw-type, side-wired. Switches shall be rated quiet-type ac only, with current rating and number of poles indicated.

2.8 PANELBOARDS:

2.8.1 Panelboards: JIS C 8480. Panelboards shall be circuit breaker-equipped unless indicated otherwise. Design shall be such that individual breakers can be removed without disturbing adjacent units or without loosening or removing supplemental insulation supplied as means of obtaining clearances as required by JIS. Where "space only" is indicated, make provisions for future installation of breaker sized as indicated. Panelboard locks shall be keyed same. Directories shall be typed to indicate load served by each circuit and mounted in holder behind transparent protective covering.

2.8.1.1 Cabinet shall conform to JIS C 8480, shall have a hinged door with latch and key lock, protective cover plate, and mounting

plate, and shall be provided with wiring gutters of adequate size at top, bottom and sides.

2.8.1.2 Neutral and Ground Terminals: Neutral and ground terminals shall be insulated from the cabinet and mounted on the mounting plate. Neutral and ground terminal bars shall be of copper or copper alloy, and number of terminals on neutral and ground bars shall be more than the number of circuits connected to the panelboards. Neutral terminal bar shall be grounded at only entrance switch cabinet and ground terminal bars shall be grounded at every switch cabinets with bonding wires. Ground terminal of main and entrance panelboards shall have enough size for ground conductor of ground electrode.

2.8.2 Panelboard Buses: Support bus bars on bases independent of circuit breakers. Main buses and back pans shall be designed so that breakers may be changed without machining, drilling, or tapping. Provide isolated neutral bus in each panel for connection of circuit neutral conductors. Bus bars shall be JIS H 3100.

2.8.3 Circuit Breakers: JIS C 8370, thermal magnetic-type with interrupting capacity as indicated. Plug-in circuit breakers unacceptable.

2.8.4 Factory Finishes: Provide standard factory finishes including rust inhibiting treatment, except that the inside finish of the panelboard shall be vivid orange (No. 22246 of FED-STD-595) and the outside including exposed parts of trim and door shall be clear blue (No. 25177 of FED-STD-595).

2.8.5 Terminal Blocks: JIS C 2811.

2.8.6 Name plate: Provide as specified in Section 16050, "Basic Electrical Materials and Methods."

2.9 MODIFICATION OF EXISTING PANELBOARD:

2.9.1 Circuit Breakers: JIS C 8370, thermal magnetic-type. Plug-in circuit breakers unacceptable.

2.10 BREAKER BOXES:

2.10.1 Cabinet shall conform to JIS C 8480 shall have a hinged door with latch and key lock, protective cover plate, and mounting plate, and shall be provided with wiring gutters of adequate size at top, bottom and sides.

2.10.2 Circuit Breakers: JIS C 8370, thermal magnetic-type. Plug-in circuit breakers unacceptable.

2.10.3 Ground Terminals: Ground terminals shall be insulated from the cabinet and mounted on the mounting plate. Ground terminal bars shall be of copper or copper alloy, and number of terminals on ground bars shall be more than the number of circuits connected to the breaker boxes. Ground terminal of main and entrance breaker boxes shall have enough size for ground conductor of ground electrode.

2.10.4 Factory Finishes: Provide standard factory finishes including rust inhibiting treatment, except that the inside finish of the breaker boxes shall be vivid orange (No. 22246 of FED-STD-595) and the outside including exposed parts of trim and door shall be clear blue (No. 25177 of FED-STD-595).

2.10.5 Name plate: Provide as specified in Section 16050, "Basic Electrical Materials and Methods."

2.11 DISCONNECTING SWITCH BOXES:

2.11.1 Cabinet shall conform to JIS C 8480 shall have a hinged door with latch and key lock, protective cover plate, and mounting plate, and shall be provided with wiring gutters of adequate size at top, bottom and sides.

2.11.2 Circuit Breakers: JIS C 8370, tripless type. Plug-in circuit breakers unacceptable.

2.11.3 Ground Terminals: Paragraph of breaker box shall apply.

2.11.4 Factory Finishes: Paragraph of breaker box shall apply.

2.11.5 Name plate: Provide as specified in Section 16050, "Basic Electrical Materials and Methods."

2.12 TV SYSTEM:

2.12.1 TV Box with Booster: Provide TV box with TV booster. TV box shall have metal enclosure containing TV booster. TV booster shall have UHF and VHF band.

2.12.2 TV Outlets: TV outlets shall be plug-in type and shall conform to the requirements of Construction Standards for Electrical

("Denki Setsubi Kohji Sekoh Kanri Shishin"), Chapter 5, Division 1, Section 9, Para. 1.9.2.

2.12.3 TV CABLE (5C-FB): CATV cable shall be PVC insulated coaxial cable. Diameter of the cable shall be 5.0 diameter. Conductors shall conform to JIS C 3102.

2.13 TELEPHONE SYSTEM: Telephone system shall consist of empty conduit, telephone receptacle, and telephone terminal box. This system does not include telephone wiring under this contract.

2.13.1 Terminal Box: Telephone terminal box shall conform to the requirements of the Nippon Telephone and Telegram Corporation (NTT) specification.

2.13.2 Telephone Outlet: Provide modular type telephone outlet. Other requirements shall conform to the Nippon Telephone and Telegram Corporation (NTT) specification.

2.14 LAN SYSTEM:

2.14.1 LAN Outlet and Connector: Shall be Category 5, Type RJ45 conforming to TIA/EIA-568 B1 and B3.

2.15 CONCRETE MORTAR FOR CONDUIT SUPPORT: Shall consist of precast concrete material, embedded steel c-channel, and formed steel clip. Features shall be as indicated.

2.15.1 Rubber Pad: Shall be of synthetic rubber material.

2.16 POWER POLE: Japanese Law No 234, two-piece painted steel, totally enclosed, snap-cover type. Provide multiple outlet-type raceway with grounding-type receptacle where indicated. Receptacles shall be as specified herein and shall be spaced minimum of one every 18 inches (45 cm).

2.17 SADDLES: Saddles shall be formed galvanized sheet steel.

2.18 STRUCTURAL STEEL FOR CONDUIT SUPPORT: JIS G 3101, type SS 400.

PART 3 - EXECUTION

3.1 INSTALLATION: Electrical installations shall conform to requirements of NFPA 70 and to requirements specified herein.

3.1.1 Splices: Make splices in accessible locations. Make splices in conductors 2.6 mm and 5.5 mm^2 (No. 10 AWG) and smaller diameter with insulated, pressure-type connector. Make splices in conductors 3.2 mm and 8 mm^2 (No. 8 AWG) and larger diameter with solderless connector, and cover with insulation material equivalent to conductor insulation.

3.1.2 Grounding and Bonding: In accordance with NFPA 70.

3.2 RESTORATION: Unless otherwise indicated, all existing objects which interfere with new work shall be removed temporary and reinstalled upon completion of new work.

3.3 PAINTING AND FINISHING: Field-applied paint on exposed metal surfaces of electrical equipment, wiring devices and breaker box support angles except shop finished surfaces and stainless steel material shall be provided in accordance with the requirements specified in Section 09900, "Paints and Coatings."

3.4 FIELD QUALITY CONTROL: Furnish test equipment and personnel and submit written copies of test results. Give Contracting Officer 5 working days notice prior to each tests.

3.4.1 Test on 600-volt Wiring: Test 600-volt wiring to verify that no short circuits or accidental grounds exist. Perform insulation resistance tests on wiring using instrument which applies voltage of approximately 500 volts to provide direct reading of resistance. Minimum resistance shall be 5 megohms.

*** END OF SECTION ***

SECTION 16510

INTERIOR LIGHTING

PART 1 - GENERAL

1.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Illuminating Engineering Society of North America (IES):

IES LHBK	1993 Lighting Handbook, Reference and Application Volumes

1.1.2 National Fire Protection Association (NFPA):

NFPA 70	2002 National Electrical Code
NFPA 101	2000 Life Safety Code

1.1.3 Underwriters Laboratories Inc. (UL):

UL 924	1996 Emergency Lighting and Power Equipment, Sixth Edition

1.1.4 Japanese Industrial Standards (JIS):

C 7501-00	Incandescent Lamps for General Lighting Service
C 7601-97	Fluorescent Lamps for General Lighting Service
C 8106-99	Fluorescent Lamp Luminares for Commercial, Industrial and Public Lighting
C 8108-91	Ballasts for Fluorescent Lamps

1.1.5 Japan Luminaires Association (JIL):

JIL 5002	Down Lights

1.2 RELATED REQUIREMENTS: Section 16050, "Basic Electrical Materials and Methods," applies to this section, with the additions and modifications specified herein. Materials not considered to be lighting equipment or lighting fixture accessories are specified in

Section 16402, "Interior Distribution Systems." Lighting fixtures and accessories mounted on exterior surfaces of building are specified in this section.

1.3 SUBMITTALS: Submit the following to the Contracting Officer in accordance with Technical Review Submittal List." Data, drawings, and reports shall employ the terminology, classifications, and methods prescribed by the IES LHBK (Lighting Handbook), as applicable, for the lighting system specified.

1.3.1 SD-04, Drawings:

a. Lighting fixture assemblies
b. Exit light
c. Emergency light

1.3.2 SD-12, Field Test:

a. Operation test

PART 2 - PRODUCTS

2.1 FLUORESCENT LIGHTING FIXTURES: JIS C 8106. Features of lighting fixture and installation details shall be as indicated.

2.1.1 Fluorescent Lamps: JIS C 7601, provide the number, type, and wattage indicated.

2.1.2 Fluorescent Core and Coil Ballasts: JIS C 8108. Ballasts shall be high power factor type unless indicated otherwise and shall be designed to operate on the voltage system to which they are connected.

2.1.2.1 Energy-saving Ballasts: Provide energy-saving fluorescent ballasts of the JIS C 8108 certified full light output type. Ballast shall be compatible for use with energy-saving lamps.

2.2 INCANDESCENT LIGHTING FIXTURES:

2.2.1 Incandescent Lamps: JIS C 7501. Provide the number, type, and wattage indicated.

2.2.2 Incandescent Down Lights: JIL 5002. Features shall be as indicated.

2.3 EXIT LIGHT (SIGNS): Exit signs shall be as indicated self-powered type. Features shall be as indicated.

2.3.1 Self-powered Exit Signs (Battery Type): Provide with automatic power failure device, test switch, pilot light, and fully automatic high/low trickle charger in a self-contained power pack. Unless otherwise indicated, battery shall be nickel-cadmium type, shall operate unattended, and require no maintenance including no additional water for a period of not less than 5 years and to operate the exit light under trouble conditions for 90 minutes.

2.4 EMERGENCY LIGHTING EQUIPMENT: UL 924, NFPA 70, and NFPA 101. Provide lamps in wattage indicated. Provide accessories required for remote-mounted lamps where indicated. Remote-mounted lamps shall be as indicated.

PART 3 - EXECUTION

3.1 INSTALLATION: Set lighting fixtures plumb, square, and level with ceiling and walls, in alignment with adjacent lighting fixtures, and secure in accordance with manufacturer's directions and approved drawings. The installation shall meet with the requirements of NFPA 70. Mounting heights specified or indicated shall be to bottom of fixture for ceiling-mounted fixtures and to center of fixture for wall-mounted fixtures. Obtain approval of the exact mounting for lighting fixtures on the job before installation is commenced and, where applicable, after coordinating with the type, style, and pattern of the ceiling being installed.

3.1.1 Exit and Emergency Lights: Install exit and emergency lights in accordance with the exit and emergency lights manufacturer's written instructions.

3.2 FIELD QUALITY CONTROL: Upon completion of the installation, conduct an operating test to show that the equipment operates in accordance with the requirements of this Section.

*** END OF SECTION ***

GENERAL DESCRIPTION OF WORK :

(ARCH WORK)

BASE-BID

(1) REMOVE EXISTING ASBESTOS VINYL TILE FLOOR WITH PLYWOOD UNDERLAYER PARTIALLY AS SHOWN.

(2) REMOVE ALL EXISTING CLINKER TILE WITH CONCRETE FLOOR & PLYWOOD UNDERLAYER AS SHOWN.

(3) REMOVE EXISTING GYPSUM BOARD WALL WITH WOOD STUD, COUNTERS, EXPAND METAL SHEETS, DOORS & WINDOWS INCLUDING WALL REPAIRING WORK AS SHOWN.
(CME MORT---APPROX 10M²)

(4) REMOVE EXISTING PLYWOOD CEILING WITH WOOD FRAMES CEILING OR REMOVE EXISTING DOUBLE CEILINGS AS SHOWN.

(5) PROVIDE NEW CARPET TILE FLOOR WITH PLYWOOD UNDERLAYER OR VINYL SHEET FLOOR WITH PLYWOOD UNDERLAYER INCLUDING STAINLESS STEEL FLOOR MOLDING AS SHOWN.

(6) PROVIDE NEW GYPSUM BOARD WALL WITH METAL STUDS AND LIGHT WEIGHT STEEL DOORS AS SHOWN.

(7) PROVIDE NEW ACOUSTIC TILE CEILING WITH GYPSUM BOARD UNDERLAYER & GALVANIZED STEEL SUSPENDED CEILING SYSTEM AND INSULATION AS SHOWN.

(8) PROVIDE NEW GYPSUM BOARD DRAFT STOPPED WALL WITH GALVANIZED STEEL STUDS & REINFORCED STEEL FRAMES AS SHOWN.

(9) REMOVE EXISTING ALUMINUM DOORS AND PROVIDE NEW STEEL DOOR OR FILL CEMENT BOARD WITH WATERPROOF PLYWOOD, STEEL FRAME & INSULATION AS SHOWN.

(10) REMOVE EXISTING ALUMINUM WINDOW & EXPAND METAL SCREEN AND PROVIDE NEW ALUMINUM WINDOW & EXPAND METAL SCREEN AS SHOWN.

(11) REMOVE EXISTING GYPSUM BOARD WALL WITH METAL STUD FOR NEW OPENING AND PROVIDE NEW OPENING WOOD TRIM WITH REINFORCEMENT STEEL FRAME AS SHOWN.

(12) REMOVE EXISTING BUILT-UP ROOFING WITH INSULATION PARTIALLY AND PROVIDE NEW 4-PLY MINERAL SURFACED BITUMINOUS BUILT-UP ROOFING WITH NEW CONCRETE FOUNDATIONS AS SHOWN.

(13) PAINT ALL EXPOSED INTERIOR SURFACES OF NEW STEEL, GYPSUM BOARD, WOOD, CEMENT MORTAR AND EXISTING GYPSUM BOARD, WOOD & CEMENT MORTAR AS SHOWN.

OPTION-1

(14) PROVIDE NEW CARPET TILE FLOOR ON EXISTING VINYL TILE FLOOR INCLUDING NEW STAINLESS STEEL FLOOR MOLDING AS SHOWN.

(15) REMOVE EXISTING ASBESTOS VINYL TILE FLOOR WITH PLYWOOD UNDERLAYER PARTIALLY AS SHOWN.

(16) REMOVE EXISTING GYPSUM BOARD WALL WITH METAL STUD, DOORS INCLUDING CARPET TILE FLOOR & WALL REPAIRING WORK AS SHOWN.
(CARPET TILE---APPROX 20M²)
(CME MORT---APPROX 10M²)

(17) REMOVE EXISTING ACOUSTIC TILE CEILING WITH GYPSUM BOARD UNDERLAYER PARTIALLY OR REMOVE EXISTING PLYWOOD CEILING WITH WOOD FRAMES CEILING SYSTEM PARTIALLY AS SHOWN.

(18) PROVIDE NEW GYPSUM BOARD WALL OR PARTITION WALL WITH METAL STUDS AND LIGHT WEIGHT STEEL DOORS AS SHOWN.

(19) REMOVE EXISTING ALUMINUM DOORS AND PROVIDE NEW STEEL DOOR AS SHOWN.

(20) REMOVE EXISTING WOOD DOOR AND FILL OPENING WITH GYPSUM BOARD & WOOD FRAME AS SHOWN.

(21) PROVIDE NEW ACOUSTIC TILE CEILING WITH GYPSUM BOARD UNDERLAYER & GALVANIZED STEEL SUSPENDED CEILING SYSTEM AND INSULATION AS SHOWN.

(22) PROVIDE NEW ACOUSTIC TILE CEILING WITH GYPSUM BOARD UNDERLAYER AS SHOWN.

(23) PAINT ALL EXPOSED INTERIOR SURFACES OF NEW STEEL, GYPSUM BOARD, WOOD, CEMENT MORTAR AND EXISTING GYPSUM BOARD, WOOD & CEMENT MORTAR AS SHOWN.

OPTION-2

(24) REMOVE EXISTING DOUBLE CEILINGS WITH WOOD SUSPENDED CEILING SYSTEM AS SHOWN.

(25) PROVIDE NEW TOILET, SHOWER & LOCKER FACILITIES ROOMS AS SHOWN.

(26) PROVIDE NEW SYSTEM KITCHEN SET WITH WALL CABINET & GYPSUM BOARD WALL WITH METAL STUD AS SHOWN.

(27) PROVIDE NEW STEEL FRAME FOR MECHANICAL EQUIPMENT AS SHOWN.

(28) REMOVE EXISTING WOOD DOOR AND FILL OPENING WITH GYPSUM BOARD & WOOD FRAME AS SHOWN.

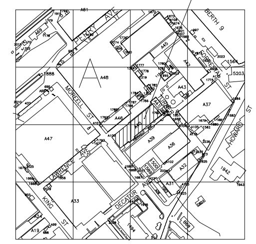
(29) PROVIDE NEW ACOUSTIC TILE CEILING WITH GYPSUM BOARD UNDERLAYER & GALVANIZED STEEL SUSPENDED CEILING SYSTEM AND INSULATION AS SHOWN.

(30) PROVIDE NEW GYPSUM BOARD WALL WITH METAL STUDS AS SHOWN.

(31) PAINT ALL EXPOSED INTERIOR SURFACES OF NEW STEEL, GYPSUM BOARD, WOOD, CEMENT MORTAR AND EXISTING GYPSUM BOARD, WOOD & CEMENT MORTAR AS SHOWN.

N

THIS PROJECT
BLDG A40



LOCATION MAP :
NOT TO SCALE

NOTES :

1 ALL WORK AND MATERIALS ARE NEW EXCEPT WHERE INDICATED AS EXISTING.

2 ALL INDICATED SIZES AND DIMENSIONS ARE IN MILLIMETERS.

3 ALL FLASHING WILL BE LOCK SEAM JOINT.

4 COLOR NUMBERS SHOWN ARE FROM "NIHON TORYO KOGYOKAI 2001 A" EXACT COLOR SHALL BE DIRECTED BY THE CONTRACTING OFFICER.

5 ALL STEEL CONNECTION EXCEPT WHERE BOLTED SHALL BE ELECTRIC ARC WELDED.

6 QUANTITIES SHOWN IN GENERAL DESCRIPTION OF WORK ARE FOR BIDDING PURPOSE ONLY.

7 ALL FURNITURE'S, LOCKER, WASHER AND DRYER WILL BE NOT IN CONTRACT.

SYMBOLS :

NUMBER INDICATES PLAN, SECTION, ELEVATION OR DETAIL.
DIV DWG NUMBER ON WHICH PLAN, SECTION, ELEVATION OR DETAIL IS SHOWN.
DIV DWG NUMBER FROM WHICH PLAN, SECTION, ELEVATION OR DETAIL IS TAKEN.

SECTION NUMBER
DIRECTION OF SECTION
DIV DWG NUMBER ON WHICH SECTION IS SHOWN.
DIV DWG NUMBER FROM WHICH SECTION IS TAKEN.

ELEVATION NUMBER
DIRECTION OF ELEVATION
DIV DWG NUMBER ON WHICH ELEVATION IS SHOWN.
DIV DWG NUMBER FROM WHICH ELEVATION IS TAKEN.

NUMBERS SHOWN ON DRAWINGS CORRESPOND TO NUMBERS SHOWN IN GENERAL DESCRIPTION OF WORK. (ARCH)

NUMBERS SHOWN ON DRAWINGS CORRESPOND TO NUMBERS SHOWN IN GENERAL DESCRIPTION OF WORK. (CIVL)

NUMBERS SHOWN ON DRAWINGS CORRESPOND TO NUMBERS SHOWN IN GENERAL DESCRIPTION OF WORK. (MECH)

NUMBERS SHOWN ON DRAWINGS CORRESPOND TO NUMBERS SHOWN IN GENERAL DESCRIPTION OF WORK. (ELEC)

ABBREVIATIONS :

A/C	AIR CONDITIONER
APPROX	APPROXIMATE
ALUM	ALUMINUM
BLDG	BUILDING
CEM	CEMENT
CONC	CONCRETE
CONT	CONTINUES
CT	CERAMIC TILE
CORR	CORRUGATED
DET	DETAIL
EA	EACH
ELEC	ELECTRICAL
EQP	EQUIPMENT
EW	EACH WAY
EXP	EXPANSION
EXST	EXISTING
FL	FLOOR LEVEL
FRP	FIBER REINFORCED PLASTIC
GL	GROUND LEVEL
GSS	GALVANIZED STEEL SHEET
GS	GALVANIZED STEEL
LPS	LAMINATED PLASTIC SHEET
LSD	LIGHTWEIGHT STEEL DOOR
MAX	MAXIMUM
MSBB	MINERAL SURFACED BITUMINOUS BUILT-UP
MECH	MECHANICAL
MT	MOSAIC TILE
MORT	MORTAR
NP	NO PAINT
NIC	NOT IN CONTRACT
OC	ON CENTER
PF	PAINT FINISH
PLYWD	PLYWOOD
RM	ROOM
SIM	SIMILAR
SST	STAINLESS STEEL
STL	STEEL
THK	THICKNESS
TYP	TYPICAL
VAT	VINYL ASBESTOS TILE
VT	VINYL TILE
VS	VINYL SHEET
W	WIDTH
W/	WITH
WP	WATERPROOF
WD	WOOD
&	AND
ø	DIAMETER

LTR | DESCRIPTION | PREP. BY | DATE | APPROVED
REVISIONS

PWC/OICC/ROICC REVIEW/SUPV.
ACQ DIR: | ELECT:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT.
DES. | DATE 3/28/03 | CHK. AJ | DATE
SUBMITTED BY | TITLE
FUNCTIONAL APPROVAL | DATE
APPROVED | DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE BLDG A40
GENERAL DESCRIPTION OF WORK

CODE ID. NO. 80091
DRAWING SIZE: D
CONST. CONT. NO.
N62836-03-C-0115
SPEC. 42-03-0115
NAVFAC DRAWING NO.
7838278
SHEET 1 OF 42
PWC. DWG. NO. | DIV. NO.
A1

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT

INTERIOR FINISH SCHEDULE :

RM NAME		FLOOR		BASE			WAINSCOT			WALL		CEILING			REMARKS
RM NO	RM NAME	MATERIAL	FINISH	MATERIAL	FINISH	H	MATERIAL	FINISH	H	MATERIAL	FINISH	MATERIAL	FINISH	H	
201	ENTRANCE(2)	VT		EXST WD	PF	170				EXST GYP BD	PF	ACT W/ GYP BD UNDERLAYER		3000	
				WD	PF	170				GYP BD	PF				
202	OFFICE	CARPET TILE		EXST WD	PF	170				EXST GYP BD	PF	ACT W/ GYP BD UNDERLAYER		3000	EXST CEM MORT COLUMN AND CEM MORT COLUMN (PF)
				WD	PF	170				GYP BD	PF				
203	KITCHEN & CONFERENCE	CARPET TILE / VS		WD	PF	170				GYP BD	PF	ACT W/ GYP BD UNDERLAYER		3000	EXST CEM MORT COLUMN (PF)
204	JANITOR RM	VT		WD	PF	100				GYP BD	PF	ACT W/ GYP BD UNDERLAYER		3000	
205	OFFICE	EXST CARPET TILE / CARPET TILE / VT		EXST WD	PF	170				EXST GYP BD	PF	EXST ACT / ACT W/ GYP BD UNDERLAYER		3000	EXST CEM MORT COLUMN AND CEM MORT COLUMN (PF)
				WD	PF	170				GYP BD	PF				
205-1	OFFICE	EXST CARPET TILE		EXST WD	PF	170				EXST GYP BD	PF	EXST ACT		3000	EXST CEM MORT COLUMN (PF)
				WD	PF	170				GYP BD	PF				
205-2	OFFICE	EXST CARPET TILE		EXST WD	PF	170				EXST GYP BD	PF	EXST ACT		3000	EXST CEM MORT COLUMN (PF)
				WD	PF	170				GYP BD	PF				
205-3	OFFICE	EXST CARPET TILE		EXST WD	PF	170				EXST GYP BD	PF	EXST ACT		3000	
				WD	PF	170				GYP BD	PF				
205-4	OFFICE	EXST CARPET TILE		EXST WD	PF	170				EXST GYP BD	PF	EXST ACT		3000	EXST CEM MORT COLUMN (PF)
				WD	PF	170				GYP BD	PF				
206	ENTRANCE(1)	VT		WD	PF	170				GYP BD	PF	ACT W/ GYP BD UNDERLAYER		3000	
207	MEN'S LOCKER RM	VT		WD	PF	100				GYP BD	PF	ACT W/ GYP BD UNDERLAYER		2400	
208	MEN'S LAUNDRY RM	VT		WD	PF	100				WP-GYP BD	PF	WP-GYP BD	PF	2400	
209	MEN'S TOILET RM	VS		VS		100	CT		1200	WP-GYP BD	PF	WP-GYP BD	PF	2400	
210	MEN'S SHOWER RM	VS		VS		100	CT		1200	CT W/ CEMENT BD UNDRLAER		WP-GYP BD	PF	2400	FRP FINISHI PARTION WALL
		MT		CT		100									
211	WOMEN'S TOILET AND SHOWER RM	VS		VS		100	CT		1200	WP-GYP BD		WP-GYP BD	PF	2400	
		MT		CT		100				CT W/ CEMENT BD UNDRLAER		WP-GYP BD	PF	2400	FRP FINISHI PARTION WALL
212	WOMEN'S LOCKER RM	VT		WD	PF	100				GYP BD	PF	ACT W/ GYP BD UNDERLAYER		2400	
213	CONFERENCE	EXST CARPET TILE / CARPET TILE		EXST WD	PF	170				EXST GYP BD	PF	ACT W/ GYP BD UNDERLAYER		3000	EXST CEM MORT COLUMN (PF)
				WD	PF	170				GYP BD	PF				

EXTERIOR FINISH SCHEDULE :

SURFACES	MATERIAL	FINISH	COLOR	REMARKS
ROOFING	MSBB	ALUM PF	SILVER	
	EXST MSBB	NP		
FLASHING	EXST GSS	NP		
	PRE-COATED GSS	NP		
PARAPET WALL	EXST CONC	NP		
WALL	EXST CONC	NP		
FOUNDATION FOR MECH EQP	CONC	NP		
WINDOW	EXST ALUM			
	ALUM			
EXPAND METAL SCREEN	EXST STL	NP		
	STL	PF		
DOOR	EXST ALUM OR STL	NP		
	STL	PF		

REVISIONS

LTR	DESCRIPTION	PREP. BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV.
ACQ DIR: ELECT:
DSGNDIR: CIVIL:
POE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
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DESIGNED BY / DATE / TITLE
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SEAL AREA

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NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

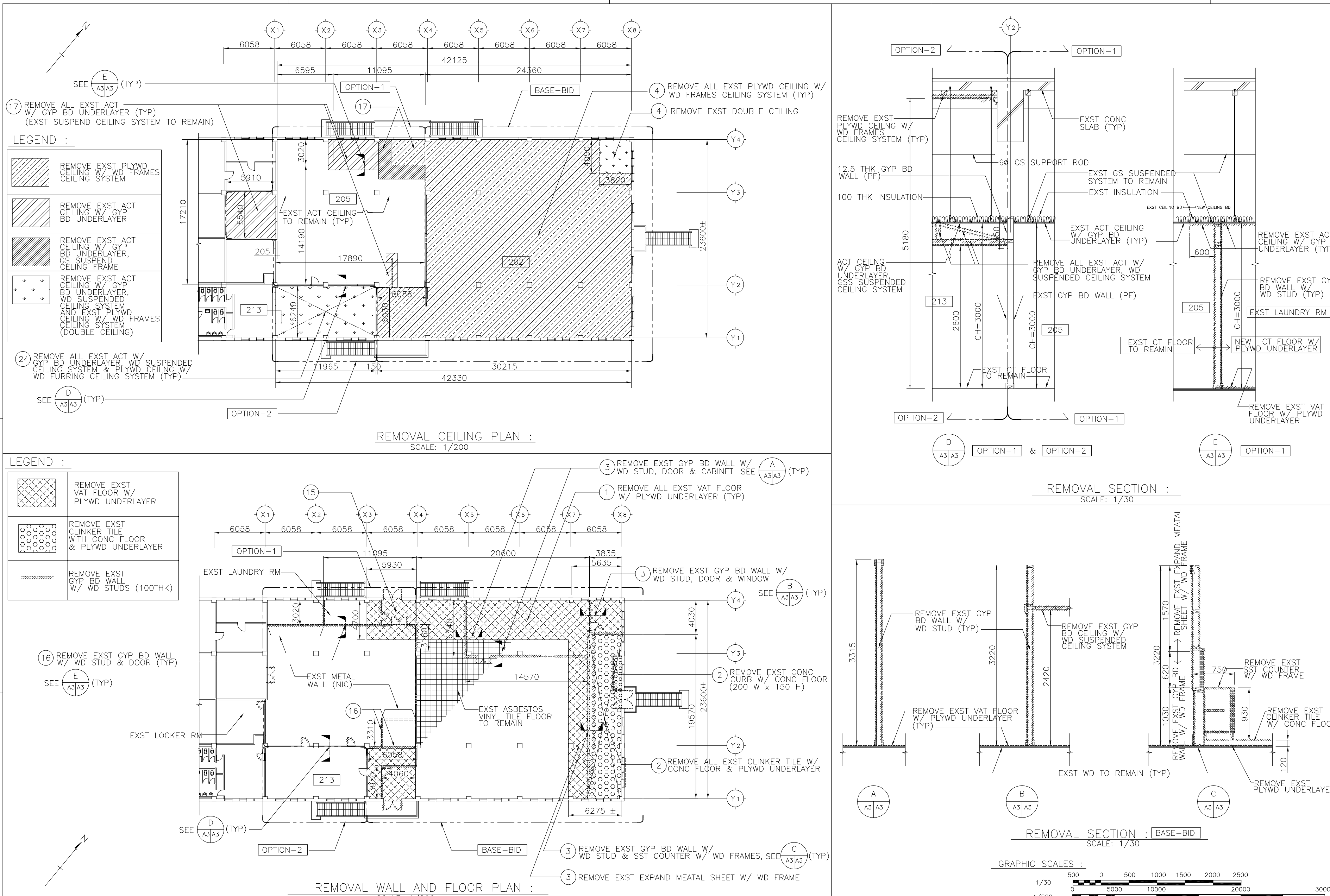
RENOVATE OFFICE BLDG A40

FINISH SCHEDULES :

CODE ID. NO. 80091
DRAWING SIZE: D
CONST. CONT. NO. N62836-03-C-0115
SPEC. 42-03-0115
NAVFAC DRAWING NO. 7838279
SHEET 2 OF 42
PWC. DWG. NO. A2
DIV. NO.

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT



IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	PREP BY	DATE	APPROVED
	REVISIONS			

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | ELEC:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN M.KUR DATE 3/28/03 CHK J.A.
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
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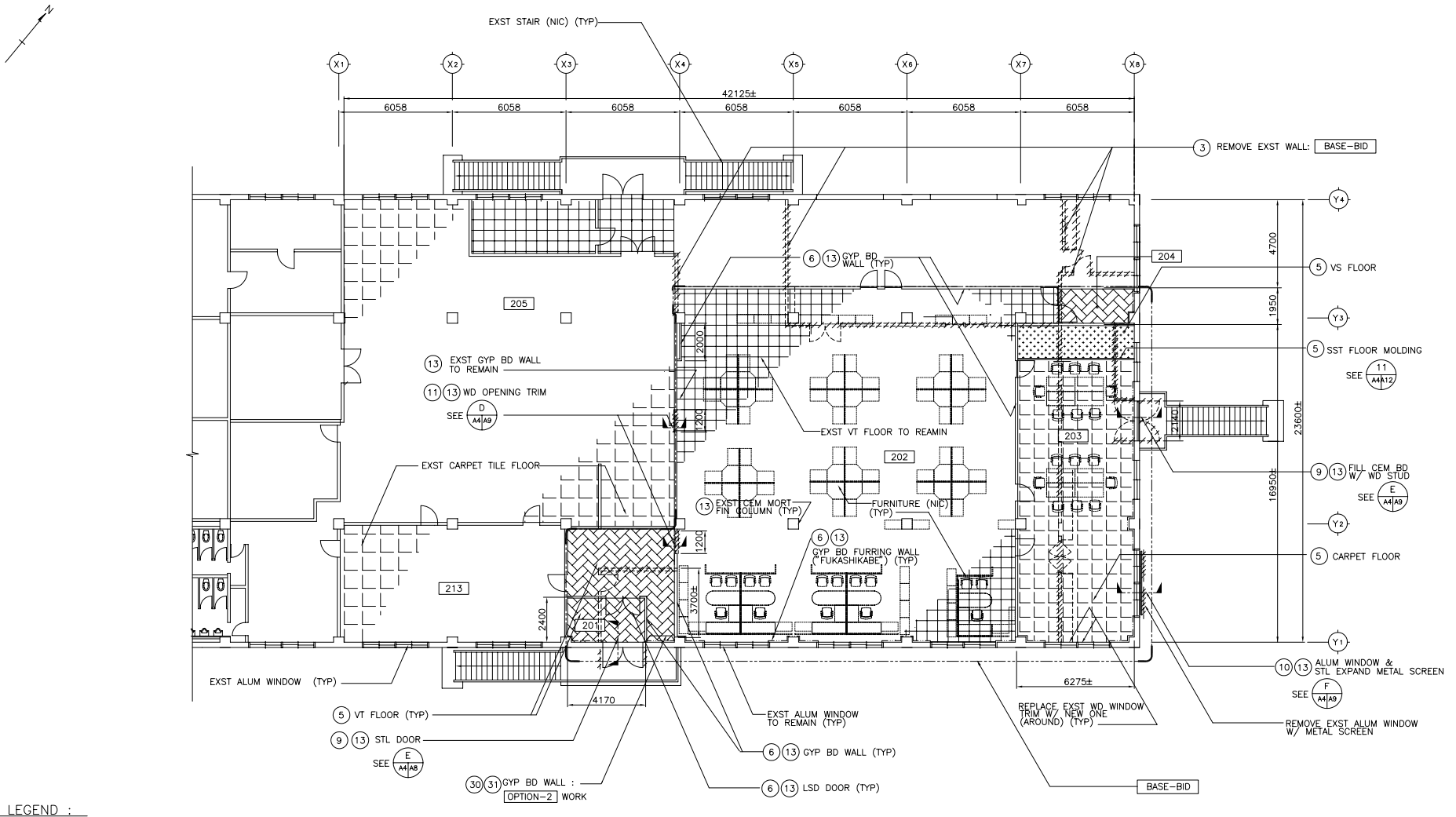
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE BLDG A40
REMOVAL PLANS

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838280
SHEET 3 OF 42
PWC DWG NO. | DIV NO. A3

WO # BDKPT



NEW 2ND FLOOR PLAN : BASE-BID
SCALE :1/100

LEGEND :

	EXST CARPET TILE FLOOR TO REMAIN (TYP)		NEW GYP BD WALL W/ WD STUD
			EXST GYP BD WALL TO REMAIN (PF)
	NEW CARPET TILE FLOOR W/ PLYWD UNDERLAYER		NEW GYP BD WALL (PF) ("FUKASHIKABE") LSD (PF) NEW GYP BD WALL (PF) W/ GSS STUD
	NEW VT FLOOR W/ PLYWD UNDERLAYER		REMOVE EXST GYP BD WALL W/ WD STUD

GRAPHIC SCALE :
1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

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YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

FLOOR PLAN :

SEAL AREA

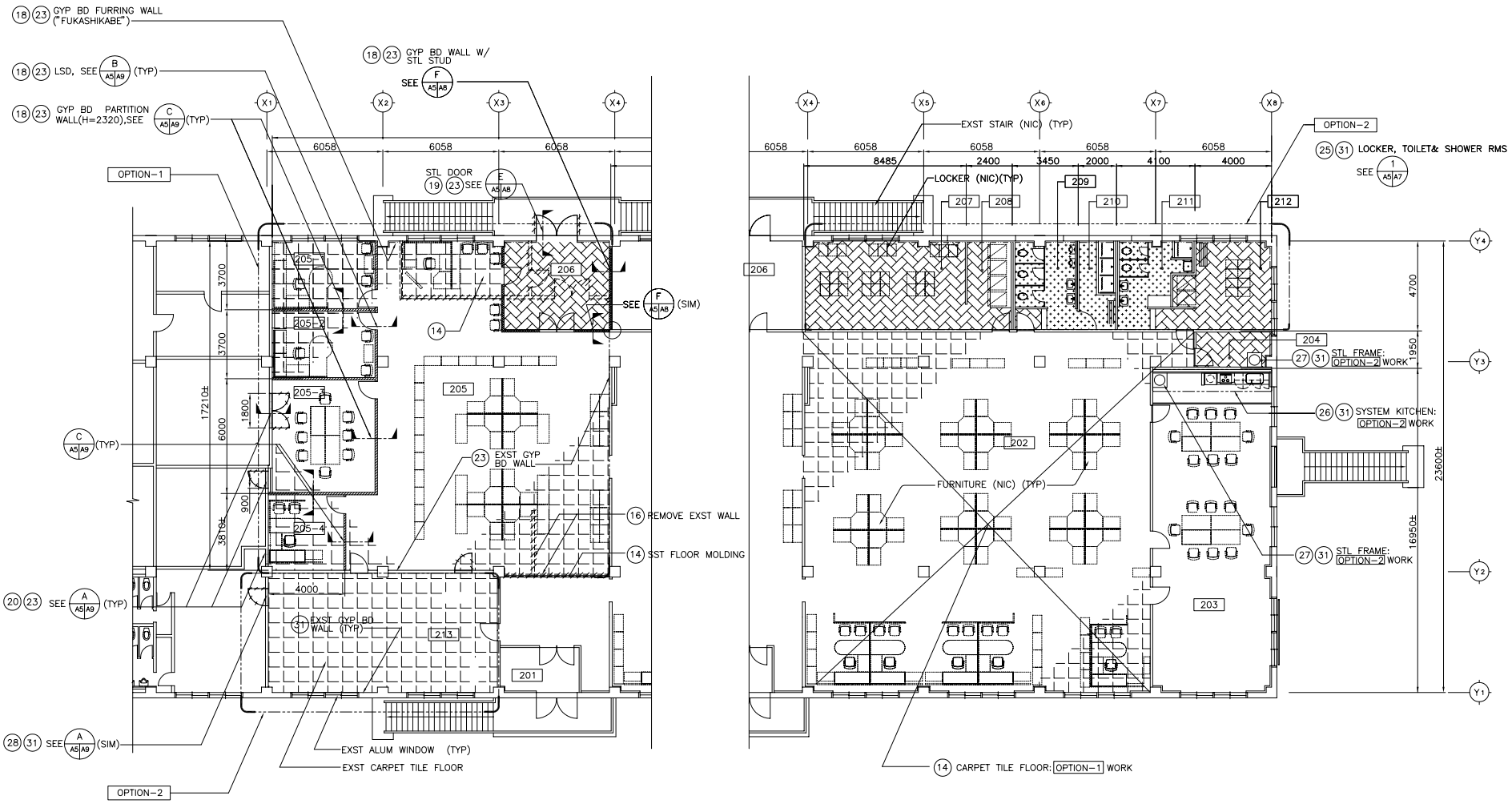
PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DEPT
DESIGN MANAGER: DATE
SUBMITTED BY: DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

PWC/OICC/ROICC REVIEW/SURV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
POE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838281
SHEET 4 OF 42
PWC DWG NO. DIV NO. A4



NEW 2ND FLOOR PLAN : OPTION-1 & OPTION-2
SCALE :1/100

NEW 2ND FLOOR PLAN : OPTION-1 & OPTION-2
SCALE :1/100

LEGEND :

EXST CARPET TILE FLOOR TO REMAIN (TYP)	NEW GYP BD WALL W/ WD STUD		NEW GYP BD WALL W/ STL STUD (PF)
	EXST GYP BD WALL TO REMAIN (PF)		
NEW CARPET TILE FLOOR W/ PLYWD UNDERLAYER	NEW GYP BD WALL (PF) ("FUKASHIKABE") LSD (PF) NEW GYP BD WALL (PF) W/ GSS STUD		NEW GYP BD PARTITION WALL (PF) W/ GSS STUD (H=2320)
NEW VT FLOOR W/ PLYWD UNDERLAYER	REMOVE EXST GYP BD WALL W/ WD STUD		

GRAPHIC SCALE :
1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SURV
ACQ DIR:
DSGNDIR:
PDE/EIC:
ARCH:
STRUCT:
MECH:
ELEC:
CIVIL:
FIRE PROT:
V-E:
ROICC:

PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DEPT
DESIGN MANAGER SIGN DATE
SUBMITTED BY: TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

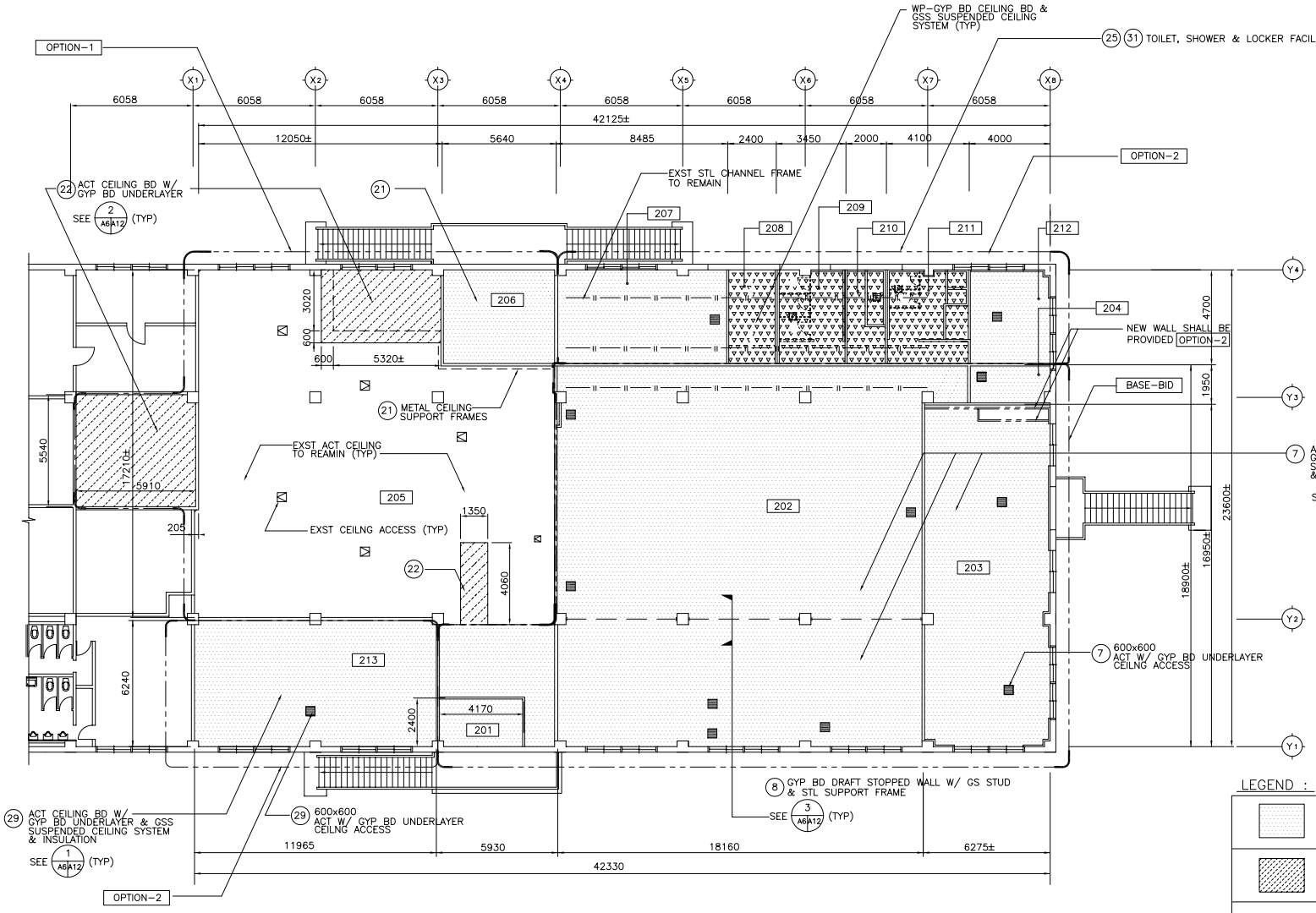
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

FLOOR PLAN :

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838282
SHEET 5 OF 42
PWC DWG NO. | DIV NO. A5

WO # BDKPT



NEW CEILING PLAN :
SCALE: 1/100

OPTION–1

OPTION–1

GRAPHIC SCALE :
1/100
1000 0 1000 5000 10000

LEGEND :

	ACT CEILING BD W/ GYP BD UNDERLAYER & GSS SUSPENDED CEILING SYSTEM & INSULATION
	ACT CEILING BD W/ GYP BD UNDERLAYER (EXST SUSPENDED CEILING SYSTEM & EXST INSULATION TO REMAIN)
	WP–GYP BD CEILING BD (PF) & GSS SUSPENDED CEILING SYSTEM
■	600x600 CEILNG ACCESS
— — —	GYP BD DRAFT WALL W/ GS STUD & STL SUPPORT FRAME
— II — II —	EXST STL CHANNEL FRAME TO REMAIN

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SURV
ACQ DIR:
DSGN DIR:
CIVIL:
ELEC:
FIRE PROT:
POE/EIC:
ARCH:
V–E:
STRUCT:
MECH:
ROICC:

PUBLIC WORKS CENTER, JAPAN
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DESIGNED BY: DATE
SUBMITTED BY: DATE
TITLE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

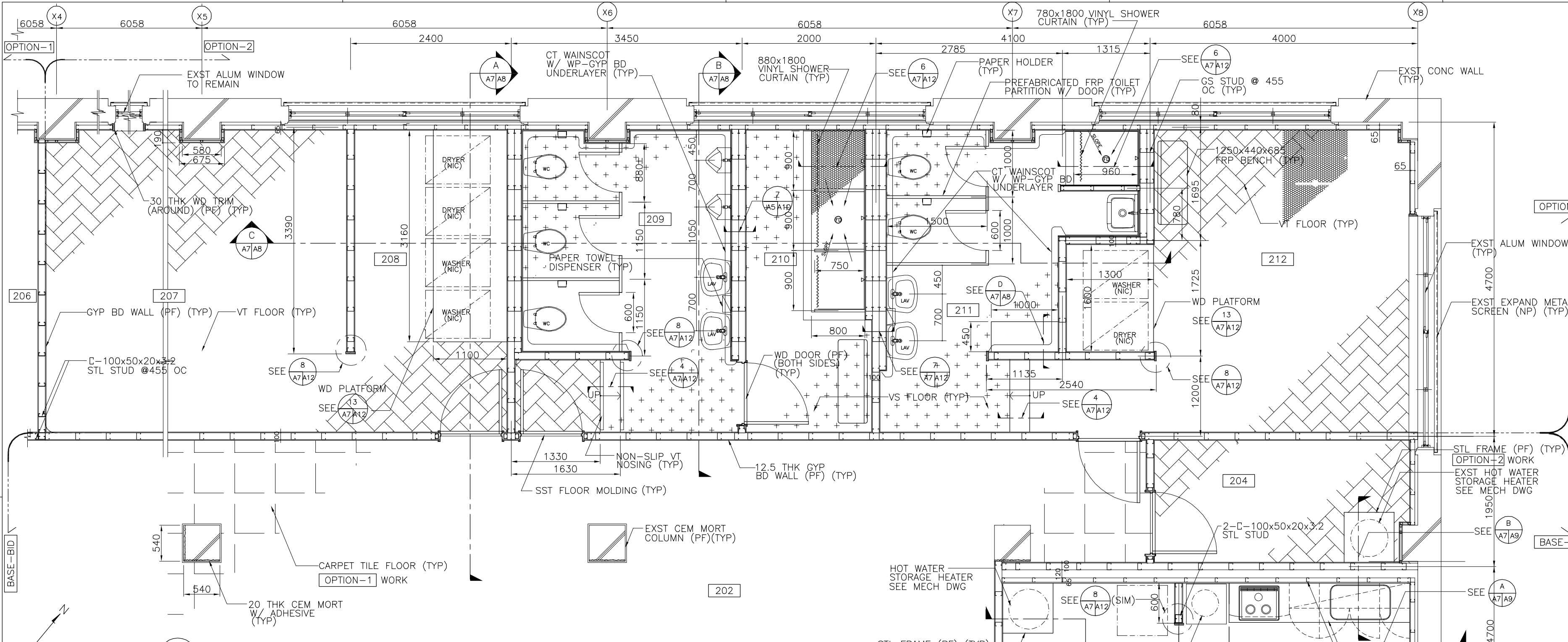
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

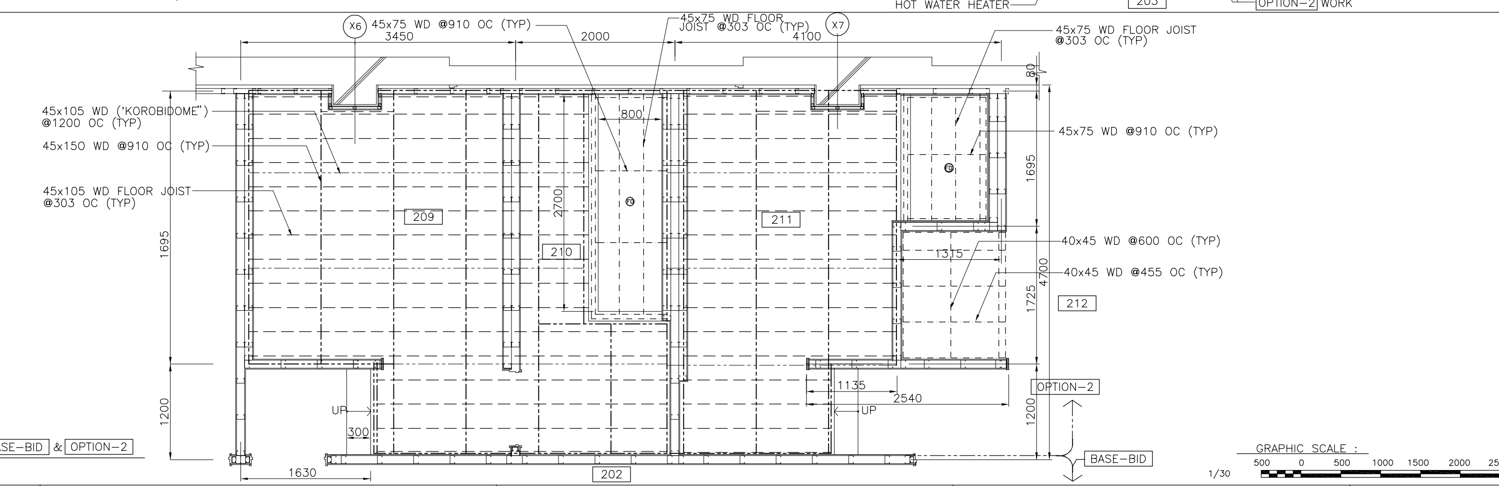
CEILING PLAN :

CODE ID NO. 80091	
DRAWING SIZE: D	
CONSTR CONTR NO. N62836–03–C–0115	
SPEC 42 –03–0115	
NAVFAC DRAWING NO. 7838283	
SHEET 6 OF 42	
PWC DWG NO.	DIV NO. A6



1 A5 A7 2ND FLOOR TOILETS & SHOWER ROOM PLAN DETAIL: BASE-BID & OPTION-2

SCALE : 1/30



2ND FRAMING FLOOR PLAN: BASE-BID & OPTION-2

SCALE : 1/30

GRAPHIC SCALE : 500 0 500 1000 1500 2000 2500

1/30

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	DATE	PREP BY	APPROVED
	REVISIONS			

PWC/OICC/ROICC REVIEW/SUPV: ACQ DIR: | DSGNDIR: | PDE/EIC: | ARCH: | STRUCT: | MECH: | ELEC: | CIVIL: | FIRE PROT: | V-E: | ROICC:

PUBLIC WORKS CENTER, JAPAN DESIGN & ENGINEERING DEPT

DSGN M.KUR DATE 3/28/03 CHK J.A.

SUBMITTED BY | TITLE | DATE

FUNCTIONAL APPROVAL | DATE

APPROVED | DATE

EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND — OICC FAR EAST YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

PLAN DETAIL & FRAMING FLOOR PLAN

CODE ID NO. 80091

DRAWING SIZE: D

CONSTR CONTR NO. N62836-03-C-0115

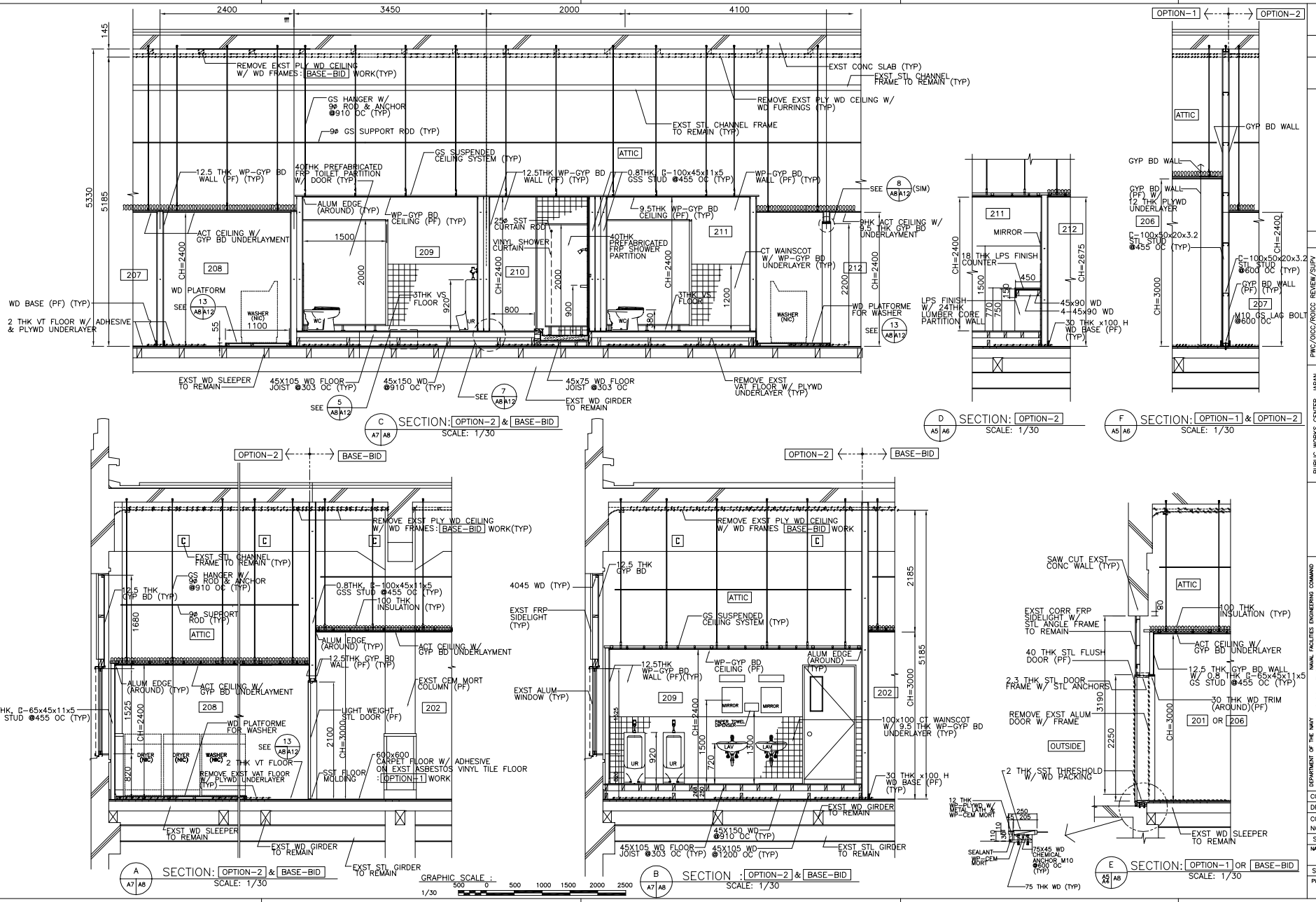
SPEC 42 -02-0115

NAVFAC DRAWING NO. 7838284

SHEET 7 OF 42

PWC DWG NO. | DIV NO. A7

WO # BDKPT


2400
3450
2000
4100
5330
5185
145
REMOVE EXST PLY WD CEILING W/ WD FRAMES: BASE-BID WORK(TYP)
EXST CONC SLAB (TYP)
EXST STL CHANNEL FRAME TO REMAIN (TYP)
REMOVE EXST PLY WD CEILING W/ WD FURRINGS (TYP)
GS HANGER W/ 9ø ROD & ANCHOR @910 OC (TYP)
9ø GS SUPPORT ROD (TYP)
EXST STL CHANNEL FRAME TO REMAIN (TYP)
GS SUSPENDED CEILING SYSTEM (TYP)
ATTIC
12.5 THK WP-GYP BD WALL (PF) (TYP)
40THK PREFABRICATED FRP TOILET PARTITION W/ DOOR (TYP)
12.5THK WP-GYP BD WALL (PF) (TYP)
0.8THK ⊏-100x45x11x5 GSS STUD @455 OC (TYP)
WP-GYP BD WALL (PF) (TYP)
SEE 8 A8 A12 (SIM)
ALUM EDGE (AROUND) (TYP)
WP-GYP BD CEILING (PF) (TYP)
9.5THK WP-GYP BD CEILING (PF) (TYP)
9HK ACT CEILING W/ 9.5 THK GYP BD UNDERLAYMENT
ACT CEILING W/ GYP BD UNDERLAYMENT
25ø SST CURTAIN ROD
VINYL SHOWER CURTAIN
40THK PREFABRICATED FRP SHOWER PARTITION
CT WAINSCOT W/ WP-GYP BD UNDERLAYER (TYP)
207
208
209
210
211
212
CH=2400
1500
2000
900
800
920
1200
2200
WD PLATFORM
SEE 13 A8 A12
WASHER (NIC)
1100
55
3THK VS FLOOR
WC
UR
WD PLATFORME FOR WASHER
WD BASE (PF) (TYP)
2 THK VT FLOOR W/ ADHESIVE & PLYWD UNDERLAYER
EXST WD SLEEPER TO REMAIN
45X105 WD FLOOR JOIST @303 OC (TYP)
45x150 WD @910 OC (TYP)
SEE 7 A8 A12
45x75 WD FLOOR JOIST @303 OC
EXST WD GIRDER TO REMAIN
REMOVE EXST VAT FLOOR W/ PLYWD UNDERLAYER (TYP)
SEE 5 A8 A12
C A7 A8 SECTION: OPTION-2 & BASE-BID
SCALE: 1/30
OPTION-1
OPTION-2
ATTIC
GYP BD WALL
GYP BD WALL (PF) W/ 12 THK PLYWD UNDERLAYER
206
207
⊏-100x50x20x3.2 STL STUD @600 OC (TYP)
⊏-100x50x20x3.2 STL STUD @455 OC (TYP)
GYP BD WALL (PF) (TYP)
M10 GS LAG BOLT @600 OC
CH=3000
CH=2400
211
212
MIRROR
18 THK LPS FINISH COUNTER
450
770
750
130
CH=2675
LPS FINISH W/ 24THK LUMBER CORE PARTITION WALL
45x90 WD
4-45x90 WD
30 THK x100 H WD BASE (PF) (TYP)
D A5 A6 SECTION: OPTION-2
SCALE: 1/30
F A5 A6 SECTION: OPTION-1 & OPTION-2
SCALE: 1/30
OPTION-2
BASE-BID
REMOVE EXST PLY WD CEILING W/ WD FRAMES: BASE-BID WORK(TYP)
EXST STL CHANNEL FRAME TO REMAIN (TYP)
GS HANGER W/ 9ø ROD & ANCHOR @910 OC (TYP)
12.5 THK GYP BD (TYP)
9ø SUPPORT ROD (TYP)
ATTIC
0.8THK, ⊏-100x45x11x5 GSS STUD @455 OC (TYP)
100 THK INSULATION (TYP)
ALUM EDGE (AROUND) (TYP)
ACT CEILING W/ GYP BD UNDERLAYMENT
12.5THK GYP BD WALL (PF) (TYP)
EXST CEM MORT COLUMN (PF)
0.8THK, ⊏-65x45x11x5 GSS STUD @455 OC (TYP)
208
202
LIGHT WEIGHT STL DOOR (PF)
WD PLATFORME FOR WASHER
SEE 13 A8 A12
DRYER (NIC)
WASHER (NIC)
2 THK VT FLOOR
REMOVE EXST VAT FLOOR W/ PLYWD UNDERLAYER (TYP)
SST FLOOR MOLDING
600x600 CARPET FLOOR W/ ADHESIVE ON EXST ASBESTOS VINYL TILE FLOOR : OPTION-1 WORK
EXST WD SLEEPER TO REMAIN
EXST WD GIRDER TO REMAIN
EXST STL GIRDER TO REMAIN
A A7 A8 SECTION: OPTION-2 & BASE-BID
SCALE: 1/30
GRAPHIC SCALE :
1/30
500 0 500 1000 1500 2000 2500
OPTION-2
BASE-BID
REMOVE EXST PLY WD CEILING W/ WD FRAMES BASE-BID WORK
4045 WD (TYP)
EXST FRP SIDELIGHT (TYP)
12.5 THK GYP BD
GS SUSPENDED CEILING SYSTEM (TYP)
ATTIC
12.5THK WP-GYP BD WALL (PF)(TYP)
WP-GYP BD CEILING (PF)
ALUM EDGE (AROUND) (TYP)
209
202
MIRROR
PAPER TOWEL DISPENSER
LAV
EXST ALUM WINDOW (TYP)
100x100 CT WAINSCOT W/ 9.5 THK WP-GYP BD UNDERLAYER (TYP)
30 THK x100 H WD BASE (PF) (TYP)
EXST WD GIRDER TO REMAIN
45X150 WD @910 OC (TYP)
45X105 WD FLOOR JOIST @303 OC (TYP)
45X105 WD @1200 OC (TYP)
EXST STL GIRDER TO REMAIN
B A7 A8 SECTION : OPTION-2 & BASE-BID
SCALE: 1/30
SAW CUT EXST CONC WALL (TYP)
ATTIC
EXST CORR FRP SIDELIGHT W/ STL ANGLE FRAME TO REMAIN
100 THK INSULATION (TYP)
ACT CEILING W/ GYP BD UNDERLAYER
40 THK STL FLUSH DOOR (PF)
12.5 THK GYP BD WALL W/ 0.8 THK ⊏-65x45x11x5 GS STUD @455 OC (TYP)
2.3 THK STL DOOR FRAME W/ STL ANCHORS
30 THK WD TRIM (AROUND)(PF)
201 OR 206
REMOVE EXST ALUM DOOR W/ FRAME
OUTSIDE
2 THK SST THRESHOLD W/ WD PACKING
12 THK WP-PLYWD W/ METAL LATH & WP-CEM MORT
SEALANT W/ WP-CEM MORT
75x45 WD CHEMICAL ANCHOR M10 @600 OC (TYP)
75 THK WD (TYP)
EXST WD SLEEPER TO REMAIN
E A5 A4 SECTION: OPTION-1 OR BASE-BID
SCALE: 1/30
REVISIONS
DESCRIPTION
LTR
ROICC:
V-E:
FIRE PROT:
CIVIL:
ELEC:
PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR:
DSGN DIR:
PDE/EIC:
ARCH:
STRUCT:
MECH:
PREP BY
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APPROVED
PUBLIC WORKS CENTER, JAPAN
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TITLE
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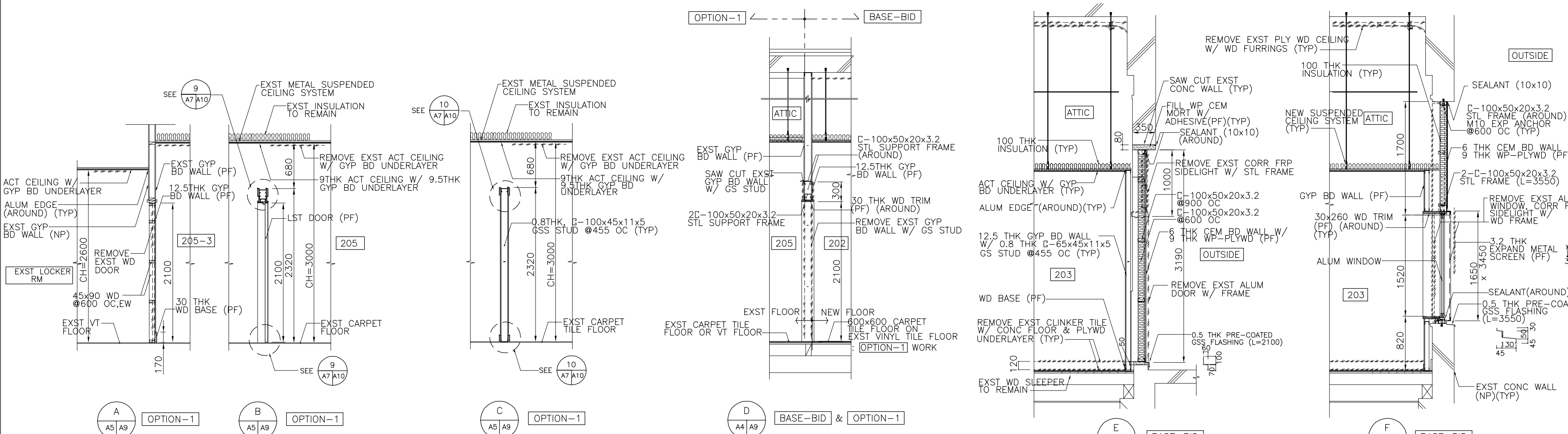
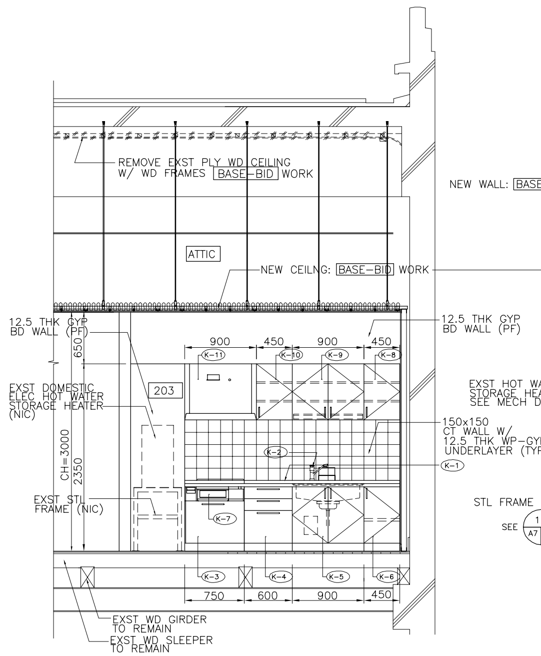
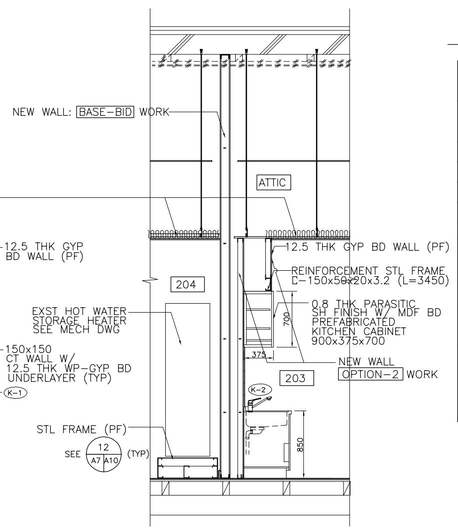
DATE
FOR COMMANDER, NAVFAC
SEAL AREA
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE BLDG A40
SECTIONS :
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO.
7838285
SHEET 8 OF 42
PWC DWG NO.
DIV NO.
A8
IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE
WO # BDKPT



SECTION :
SCALE: 1/30



A A7 A9 SECTION: OPTION-2 & BASE-BID
SCALE: 1/30



B A7 A9 SECTION: OPTION-2 & BASE-BID
SCALE: 1/30

SYSTEM KITCHEN ASSEMBLY SCHEDULE: OPTION-2

	NAME	DIESCRIPTION	SIZE	REMARKS
K-1	WORK TOP W/ SINK	SST	2700(w)x650(d)x22(h)-1EA	
K-2	SINGLE LEVER FAUCET	SST		
K-3	BASE CABINET	LPS SH FINISH W/ SILICON COATED DOOR & 3 DRAWER TYPE	750(w)x640(d)x830(h)-1EA	HANDLE: ZINC ALLOY W/ ACRYLIC-RESIN COATED
K-4	BASE CABINET	LPS SH FINISH W/ SILICON COATED DOOR & 1 DRAWER TYPE	600(w)x640(d)x830(h)-1EA	HANDLE: ZINC ALLOY W/ ACRYLIC-RESIN COATED
K-5	BASE CABINET	LPS SH FINISH W/ SILICON COATED DOOR	900(w)x640(d)x830(h)-1EA	HANDLE: ZINC ALLOY W/ ACRYLIC-RESIN COATED
K-6	BASE CABINET	LPS SH FINISH W/ SILICON COATED DOOR & 1(ONE) SELF	450(w)x640(d)x830(h)-1EA	
K-7	COOKING HEATER	ELEC COOKING HEATER (IH-TYPE)	600(w)x564(d)x220(h)-1EA	
K-8	WALL CABINET	LPS SH FINISH W/ SILICON COATED DOOR & 2(TWO) SHELVES	450(w)x375(d)x700(h)-1EA	HANDLE: ZINC ALLOY W/ ACRYLIC-RESIN COATED INCLUDING LIGHTING FIXTURE BUILT-IN TYPE
K-9	WALL CABINET	LPS SH FINISH W/ SILICON COATED DOOR & 2(TWO) SHELVES	900(w)x375(d)x700(h)-1EA	HANDLE: ZINC ALLOY W/ ACRYLIC-RESIN COATED
K-10	WALL CABINET	LPS SH FINISH W/ SILICON COATED DOOR & 2(TWO) SHELVES	450(w)x375(d)x700(h)-1EA("FUNENN-TYPE")	HANDLE: ZINC ALLOY W/ ACRYLIC-RESIN COATED
K-11	RANGE HOOD W/ FAN	PRE-COATED GS RANGE HOOD (COLOR:) EXHAUST AIR QTY : 580m³/H AT 0mmAq (high speed) ELEC POWE: 1Ø,100V 50Hz,101W	900(w)x580(d)x700(h)-1EA	

GRAPHIC SCALE :
1/30 500 0 500 1000 1500 2000 2500

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR | DESCRIPTION | REVISIONS | DATE | PREP BY | DATE | APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | ELEC:
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PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN DESIGN & ENGINEERING DEPT
DSGN M.KUR DATE 3/28/03 CHK J.A. DATE
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
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SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

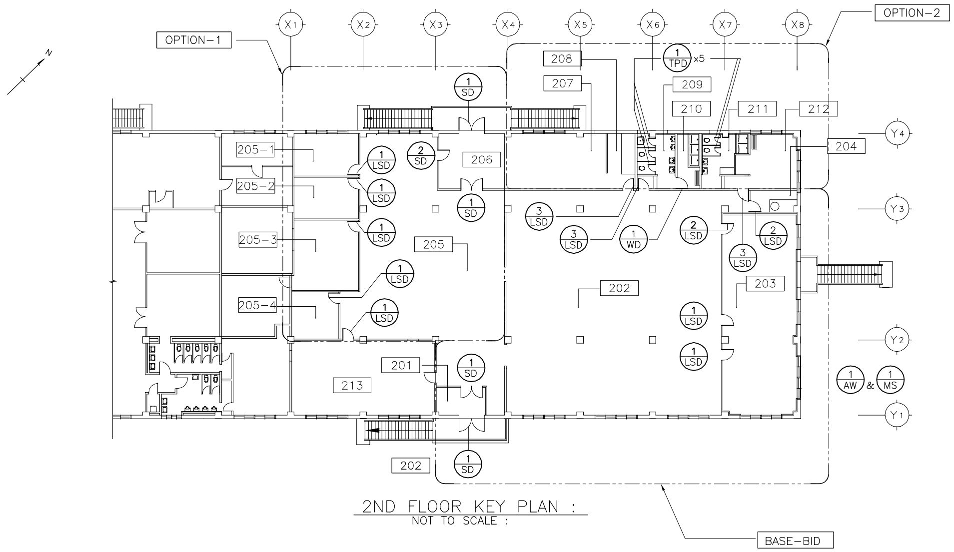
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

SECTION NO. 2

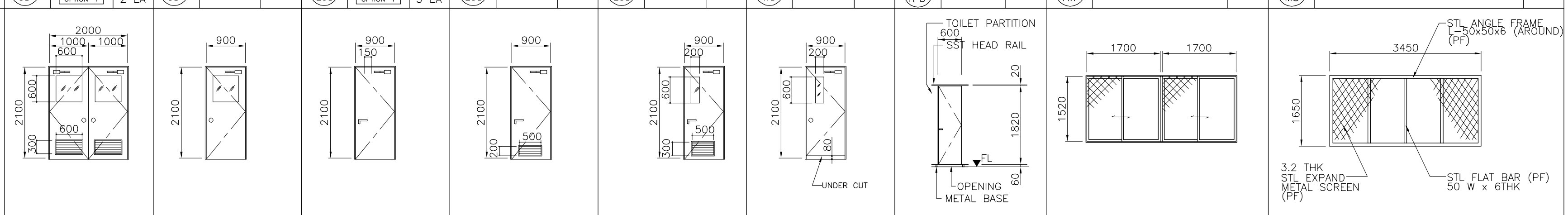
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838286
SHEET 9 OF 42
PWC DWG NO. | DIV NO. A9

WO # BDKPT



2ND FLOOR KEY PLAN :
NOT TO SCALE :

DOOR & WINDOW SCHEDULES:

MARK & QTY	1 SD — BASE-BID 2 EA; OPTION-1 2 EA	2 SD — OPTION-1 1 EA	1 LSD — BASE-BID 2 EA; OPTION-1 5 EA	2 LSD — BASE-BID 2 EA	3 LSD — BASE-BID 3 EA	1 WD — OPTION-2 1 EA	1 TPD — OPTION-2 5 EA	1 AW — BASE-BID 1 EA	1 MS — BASE-BID 1 EA
ELEVATION									
TYPE & DOOR DEPTH	STL DOUBLE SWING FLUSH DOOR 40 THK	STL DOUBLE SWING FLUSH DOOR 40 THK	LIGHT STEEL SWING FLUSH DOOR 40 THK	LIGHT STEEL SWING FLUSH DOOR 40 THK	LIGHT STEEL SWING FLUSH DOOR 40 THK	WD SWING FLUSH DOOR 40 THK	PREFABRICATED FRP TOILET PARTITION DOOR	ALUM SLIDING WINDOW	STL EXPAND METAL SCREEN
GLASS	5 THK TEMPERED GLASS	5 THK TEMPERED GLASS			4 THK FIGURED GLASS	4 THK FIGURED GLASS		5 THK CLEAR GLASS	
HARDWARE	SST DOOR KNOB W/ CYLINDER LOCK SET -- 2 SET SST HINGES--6 EA DOOR CLOSER--2 EA	SST DOOR KNOB W/ CYLINDER LOCK SET -- 1 SET SST HINGES--3 EA DOOR CLOSER--1 EA	SST LEVER HANDLE-1EA SST HINGES--3 EA DOOR CLOSER -1EA	SST LEVER HANDLE-1EA SST HINGES--3 EA DOOR CLOSER -1EA	SST DOOR KNOB--1EA SST HINGES--3 EA DOOR CLOSER -1EA	SST DOOR KNOB--1EA SST HINGES--3 EA DOOR CLOSER -1EA	SET HARDWARE (LAVATORY TYPE LOCK SET)	SET HARDWARE	
REMARKS	SST THRESHOLD ALUM LOUVER-- 2EA	SST THRESHOLD ALUM LOUVER-- 1EA		ALUM LOUVER -- 1EA	SST THRESHOLD	SST THRESHOLD		SST INSECT SCREEN	

DEPARTMENT OF THE NAVY
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U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

KEY PLAN AND DOOR & WINDOW SCHEDULES

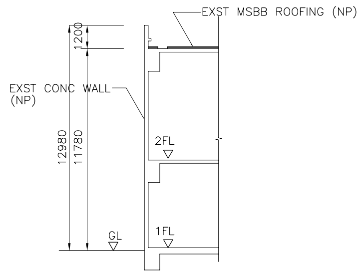
PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT

REVISIONS

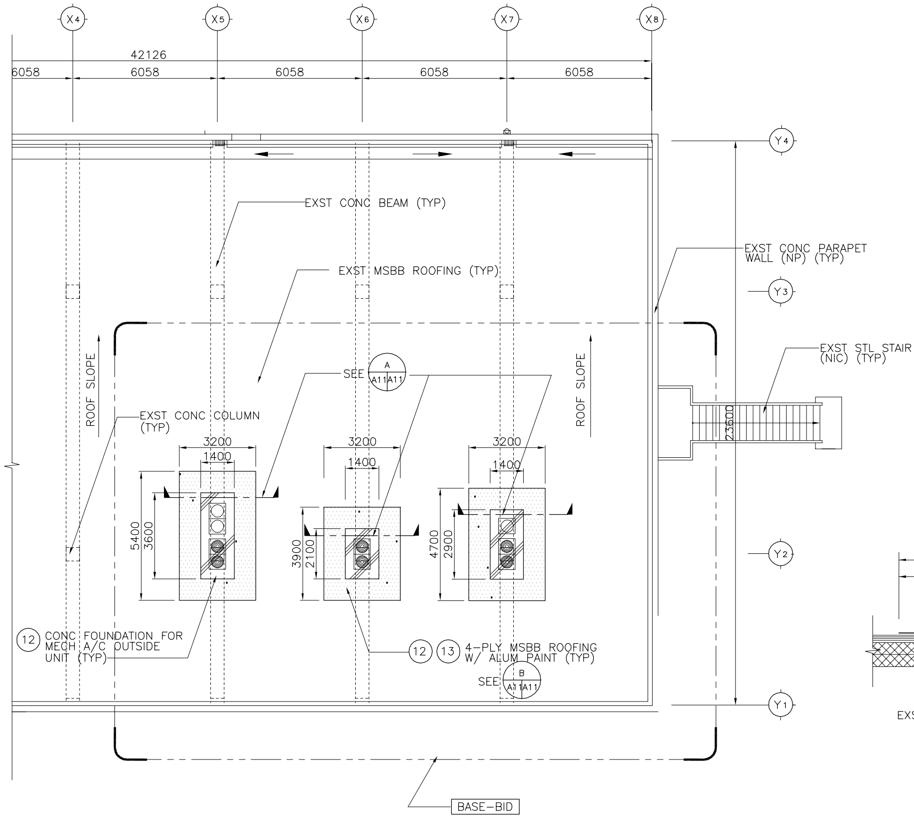
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42-03-0115
NAVFAC DRAWING NO. 7838287
SHEET 10 OF 42
PWC DWG NO. DIV NO. A10

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT



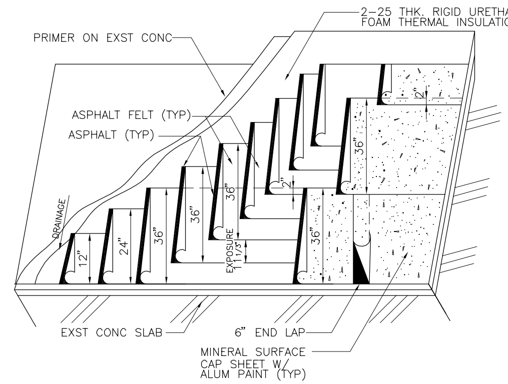
TYPICAL SECTION
NO TO SCALE :



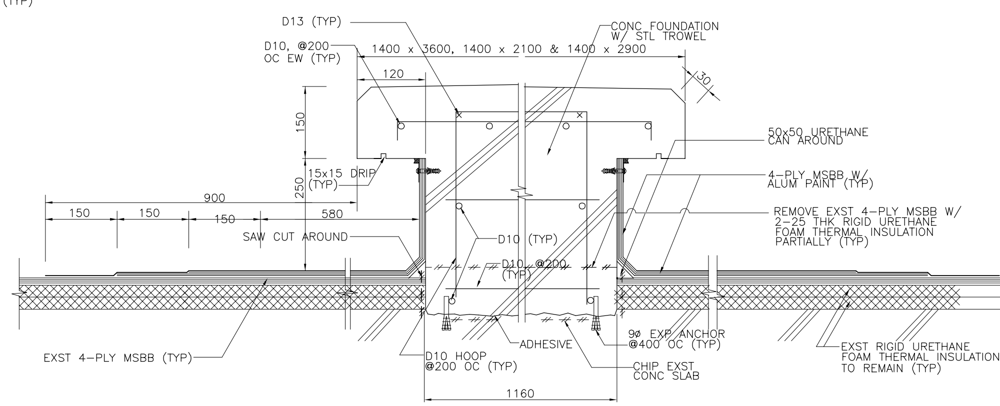
ROOF PLAN : BASE-BID
SCALE :1/100

MATERIALS PER 100 SQ.FT. OF ROOF

1. ASPHALT FELT
   BETWEEN SHEET 8.6 LBS ——— 3-PLY
   CAP SHEET 74 LBS ——— 1-PLY
2. ASPHALT
   ON CONC. DECK ——— 30 LBS
   BETWEEN PLY ——— 60 LBS

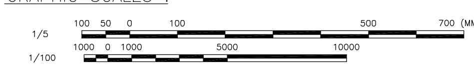


B
A11 A11
4-PLY MSBB ROOFING :
NOT TO SCALE



A
A11 A11
FOUNDATION :
SCALE : 1/5

GRAPHIC SCALES :



IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	DATE	APPROVED
	REVISIONS		

PREP BY

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN M.KUR DATE 3/28/03 CHK J.A
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
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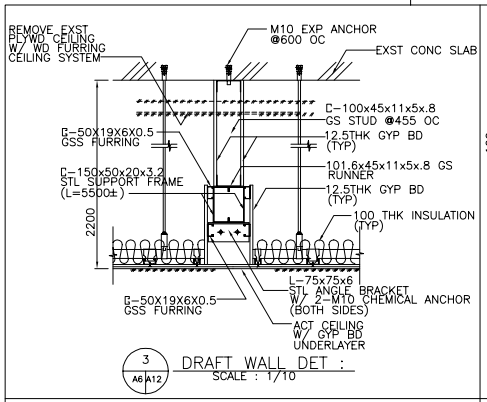
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

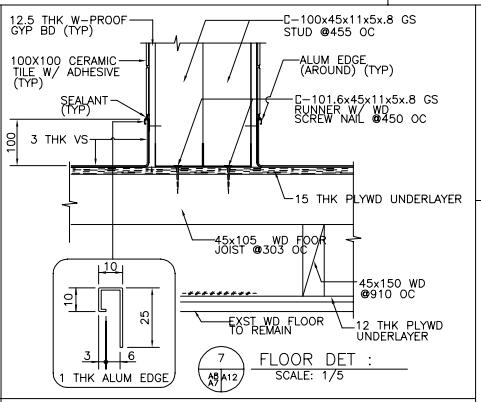
ROOF PLAN AND DETAILS

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -01-0115
NAVFAC DRAWING NO. 7838288
SHEET 11 OF 42
PWC DWG NO. DIV NO. A11

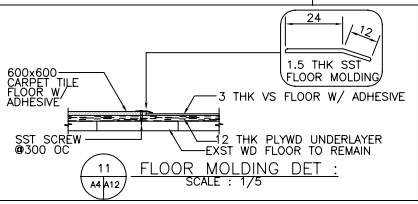
WO # BDKPT



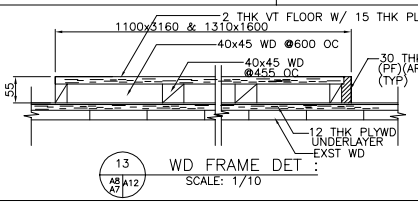
3 A6 A12 DRAFT WALL DET :
SCALE : 1/10



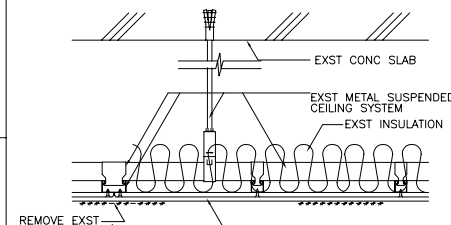
7 A8 A7 FLOOR DET :
SCALE: 1/5



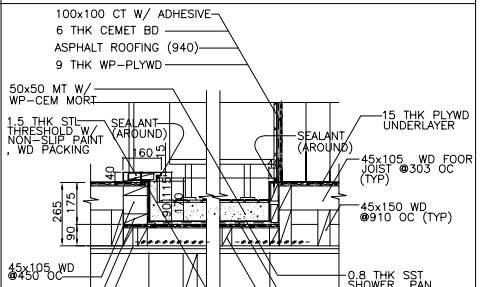
11 A4 A12 FLOOR MOLDING DET :
SCALE : 1/5



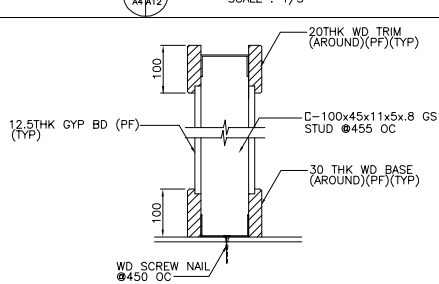
13 A8 A7 A12 WD FRAME DET :
SCALE: 1/10



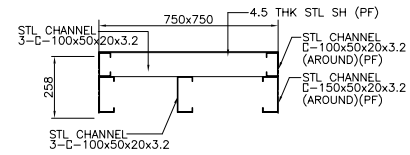
2 A6 A12 CEILING DET :
SCALE: 1/5



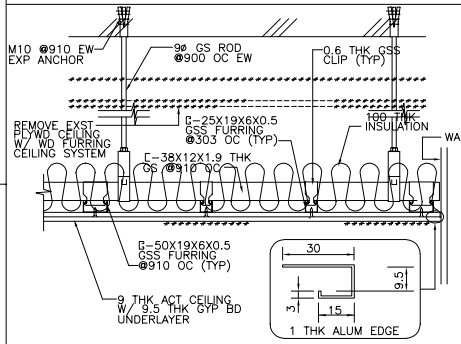
6 A7 A12 SHOWER PAN DET :
SCALE : 1/10



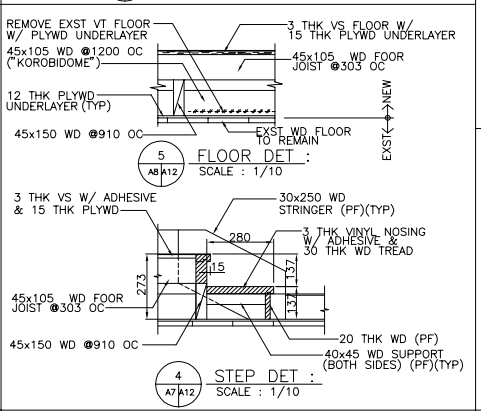
10 A9 A12 BASE DET :
SCALE : 1/5



12 A9 A12 STL FRAME DET :
SCALE: 1/10

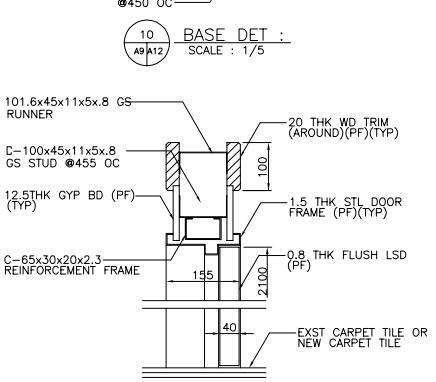


1 A6 A12 CEILING DET :
SCALE: 1/5

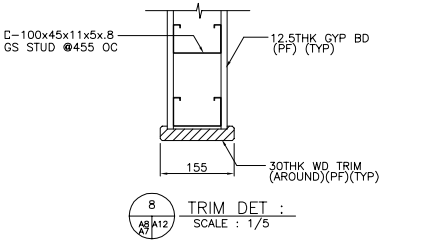


5 A8 A12 FLOOR DET :
SCALE : 1/10

4 A7 A12 STEP DET :
SCALE : 1/10



9 A9 A12 WALL DET :
SCALE : 1/5



8 A9 A7 TRIM DET :
SCALE : 1/5

TYPICAL DETAILS :
SCALE : 1/5

1/10 100 0 100 500 1000
1/5 100 50 0 100 500 700

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SURV
ACQ DIR: ELEC:
DSGN DIR: CIVIL:
FDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

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YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

DETAILS

CODE ID NO.	80091
DRAWING SIZE:	D
CONSTR CONTR NO.	N62836-03-C-0115
SPEC	42 -03-0115
NAVFAC DRAWING NO.	7838289
SHEET	12 OF 42
PWC DWG NO.	DIV NO. A12

WO # BDKPT

GENERAL DESCRIPTION OF WORK :

(MECHANICAL WORK)

BASE-BID

1. REMOVE EXISTING KITCHEN EQUIPMENT, KITCHEN HOOD FAN SYSTEM, ELECTRIC HOT WATER STORAGE HEATERS, REFRIGERATOR, GAS CYLINDER SHED AND ASSOCIATED PIPING AS SHOWN.
2. REMOVE EXISTING CAST IRON RADIATORS AND DRINKING FOUNTAIN WITH ASSOCIATED PIPING AS SHOWN.
3. PROVIDE NEW HEAT PUMP TYPE A/C SYSTEM AS SHOWN.
4. PROVIDE NEW HEAT RECOVERY TYPE VENTILATOR WITH DUCT SYSTEM AS SHOWN.

OPTION-1

5. REMOVE EXISTING CAST IRON RADIATORS WITH ASSOCIATED PIPING AS SHOWN.
6. REMOVE EXISTING WINDOW TYPE A/C UNIT, SINK, WASHER, DRYERS WITH ASSOCIATED PIPING AND PROVIDE NEW COLD WATER PIPING AS SHOWN.
7. REMOVE EXISTING CEILING MOUNTED TYPE EXHAUST FAN AS SHOWN.
8. REMOVE EXISTING ELECTRIC HOT WATER STORAGE HEATER TEMPORARILY.

OPTION-2

9. REMOVE EXISTING WALL MOUNTED TYPE EXHAUST FANS AS SHOWN.
10. REINSTALL EXISTING ELECTRICAL HOT WATER STORAGE HEATER AND PROVIDE NEW ASSOCIATED PIPING AS SHOWN.
11. RELOCATE EXISTING ELECTRIC DOMESTIC HOT WATER STORAGE HEATER WITH TABLE AS SHOWN.
12. PROVIDE NEW HEAT PUMP TYPE INSIDE A/C UNITS AND ASSOCIATED PIPING AS SHOWN.
13. PROVIDE NEW PLUMBING FIXTURE, ELECTRIC HOT WATER STORAGE HEATER AND ASSOCIATED PIPING AS SHOWN.
14. PROVIDE NEW HEAT RECOVERY TYPE VENTILATOR WITH DUCT SYSTEM AS SHOWN.
15. PROVIDE NEW CEILING MOUNTED TYPE EXHAUST FANS AND DRYER DUCT AS SHOWN.
16. REMOVE EXISTING DRAIN PIPING AND EXTEND NEW DRAIN PIPING AS SHOWN.

NOTE :

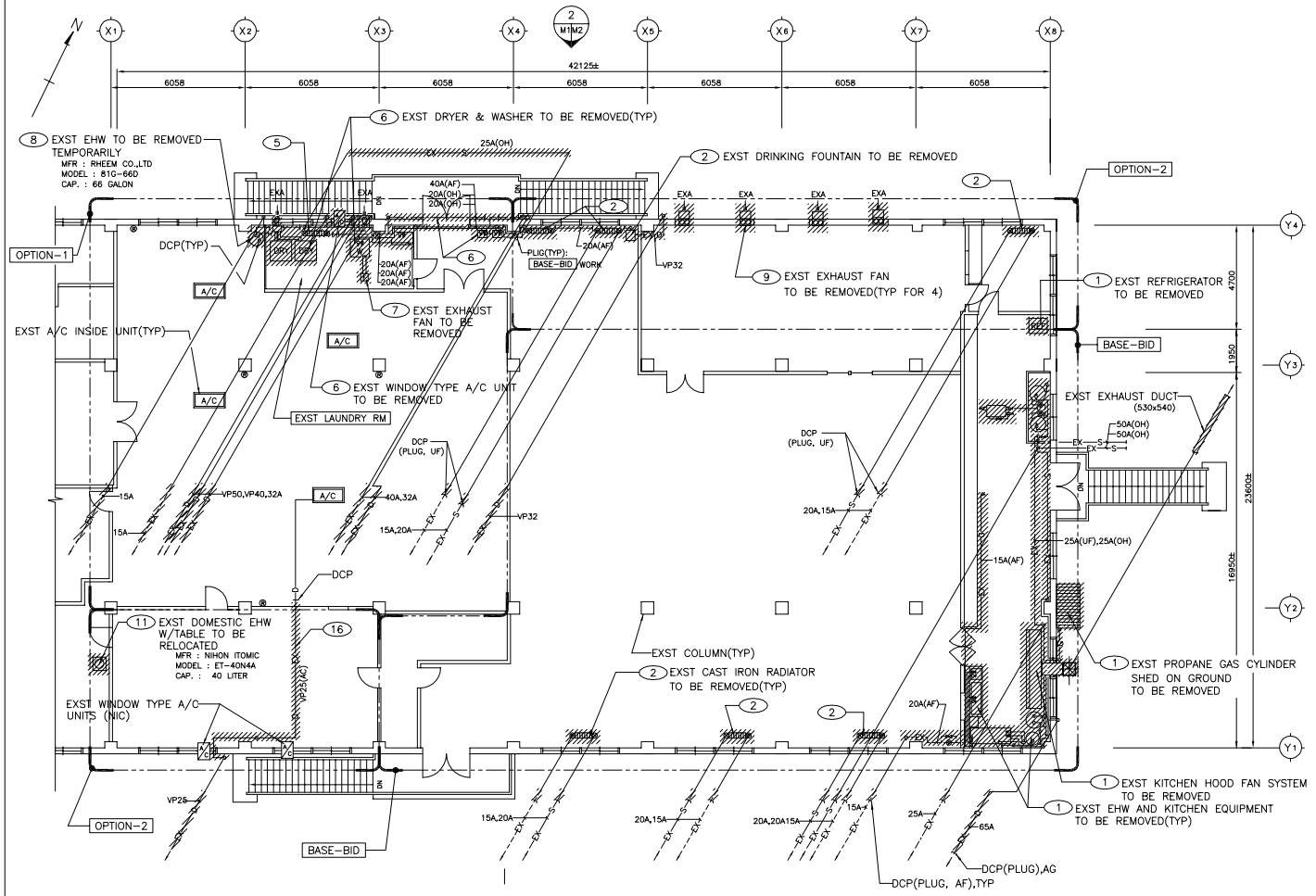
1. FOR APPLICABLE NOTES, SEE DWG A1.

LEGEND :

	EXST	NEW
STEAM SUPPLY PIPE	EX S	
CONDENSATE RETURN PIPE	EX	
COLD WATER PIPE	EX	
HOT WATER PIPE	EX I	I
SEWER PIPE		
WASTE WATER PIPE		W
DRAIN PIPE	EX D	D
VENT PIPE		V
REFRIGERANT PIPE	EX R	R
PROPANE GAS PIPE	EX G	
VOLUME DAMPER		FD
FIRE DAMPER		FD
CAST IRON RADIATOR		
GATE VALVE		
CHECK VALVE		
TPR VALVE		
STRAINER		
RADIATOR VALVE		
STEAM TRAP		
PLUG		
MIXING SHOWER HEAD		
MIXING FAUCET		
FAUCET		
WIRING REMOTE CONTROLLER		
WIRING CONTROL SWITCH		CS
FAN CONTROL SWITCH		FS
CENTRAL CONTROLLER		CR
TEMPERATURE/PRESSURE RELIEF VALVE		TRP
AUTOMATIC AIR VENT		AAV
EXST MATERIAL TO BE REMOVED		

ABBREVIATIONS :

AAV	AUTOMATIC AIR VENT	UF	UNDER FLOOR
AC	ABOVE CEILING	NIC	NOT IN CONTRACT
AF	ABOVE FLOOR	NCP	NEW CONNECTION POINT
AR	ABOVE ROOF	TYP	TYPICAL
ARCH	ARCHITECTURE	TRP	TEMPERATURE/PRESSURE RELIEF VALVE
DCP	DISCONNECTION POINT	A/C	AIR CONDITIONER
DWG	DRAWING	W/	WITH
EA	EACH		
MIN	MINIMUM	MAX	MAXIMUM
THK	THICKNESS	OC	ON CENTER
EHW	ELECTRIC HOT WATER STORAGE HEATER	GL	GROUND LEVEL
CL	CEILING	MFR	MANUFACTURER
FRP	FIBER REINFORCED PLASTIC	OH	OVERHEAD
CONC	CONCRETE	DN	DOWN
PH	PHASE		
EXA	EXHAUST AIR	STD	STANDARD
EXST	EXISTING	WB	WET BULB
ELEC	ELECTRIC	DB	DRY BULB
FL	FLOOR LEVEL	TEMP	TEMPERATURE
CAP.	CAPACITY	PRESS	PRESSURE
SA	SUPPLY AIR	NIC	NOT IN CONTRACT
OA	OUTSIDE AIR	INSU	INSULATION
RA	RETURN AIR	FLEX	FLEXIBLE



GRAPHIC SCALE :

1/100 1000 0 1000 5000 10000

EXST 2ND FLOOR PLAN: BASE-BID, OPTION-1 & OPTION-2

SCALE :1/100

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR: ELEC:
DSGN DIR: CIVIL:
DSGNR: FIRE PROT:
PDE/EIC: V-E:
ARCH: LTR
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MECH:

PUBLIC WORKS CENTER, JAPAN
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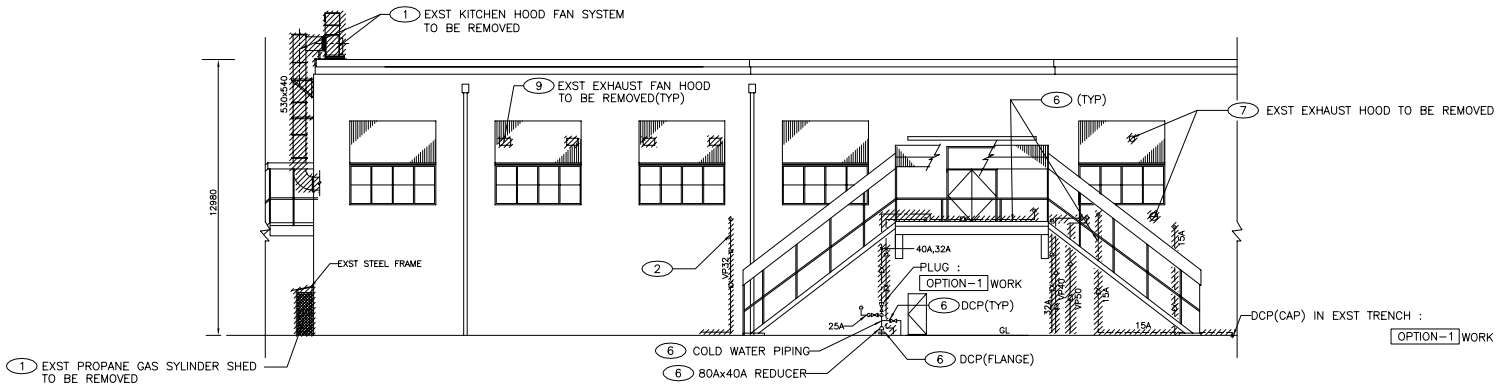
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

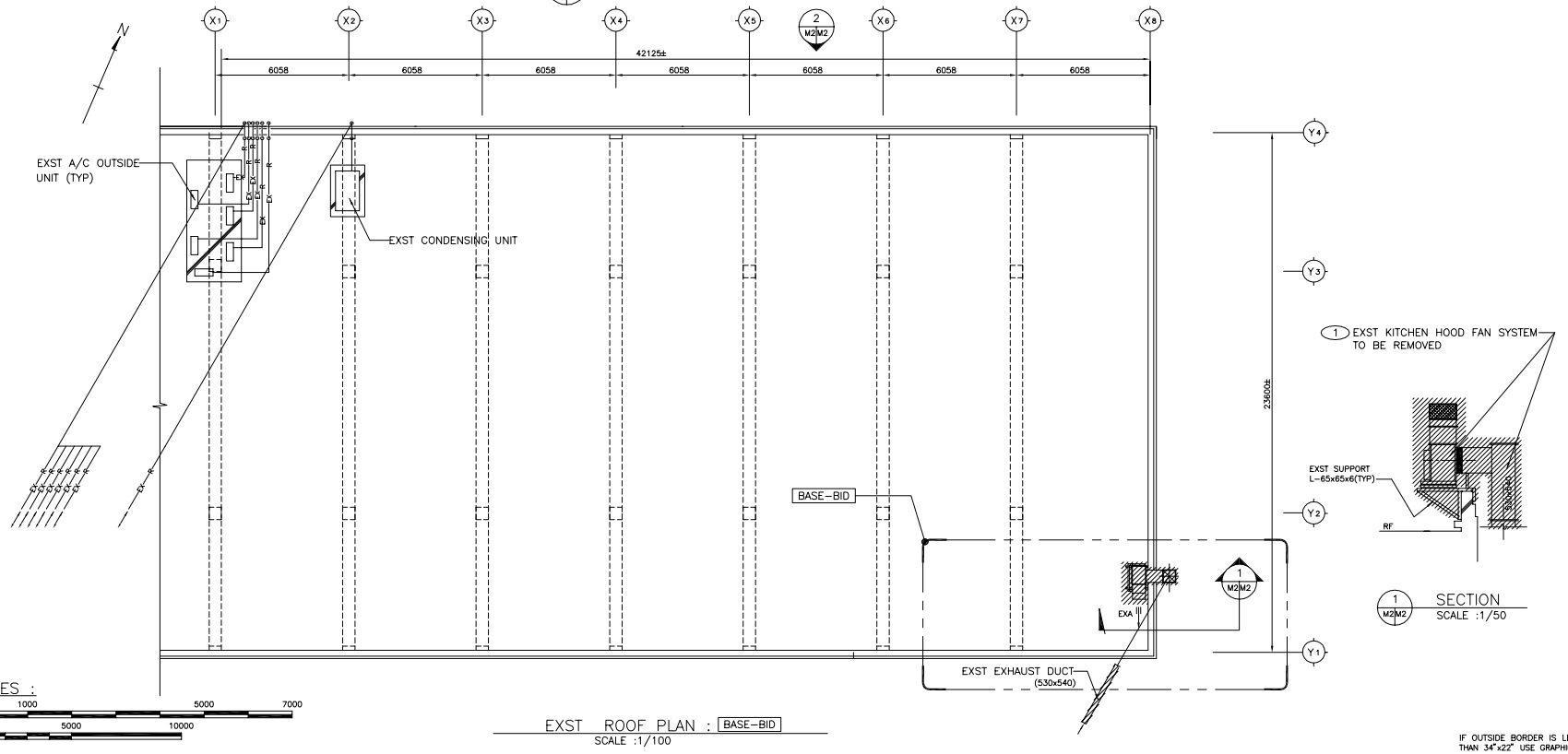
GENERAL DESCRIPTION OF WORK AND EXISTING PLAN

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838290
SHEET 13 OF 43
PWC DWG NO. DIV NO. M1

WO # BDKPT



2 M1 M2 ELEVATION
SCALE :1/100



1 M2M2 SECTION
SCALE :1/50

GRAPHIC SCALES :

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1/100 1000 0 1000 5000 10000

EXST ROOF PLAN : BASE-BID
SCALE :1/100

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

DESCRIPTION	LTR	DATE	APPROVED
		PREP BY	

PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR:	ELEC:		
DSGNDIR:	CIVIL:		
PDE/EIC:	FIRE PROT:		
ARCH:	V-E:		
STRUCT:	ROICC:		
MECH:			

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U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

EXISTING PLAN AND ELEVATION

CODE ID NO. 80091	
DRAWING SIZE: D	
CONSTR CONTR NO. N62836-03-C-0115	
SPEC 42 -03-0115	
NAVFAC DRAWING NO. 7838291	
SHEET 14 OF 43	
PWC DWG NO.	DIV NO. M2

WO # BDKPT

EQUIPMENT SCHEDULE

NO.	DESCRIPTION	REMARK
1	AIR COOLED MULTIPLE TYPE HEAT PUMP A/C SYSTEM------1 SYSTEM (1) OUTSIDE UNIT -------------------1 EA EQUIVALENT HORSEPOWER : 13 HP COOLING CAP. : 35.5Kw (*1) HEATING CAP. : 40 Kw (*2) ELEC CAP. : 3ø, 200V, 50HZ HEAT EXCHANGER : CROSS FIN COIL TYPE COMPRESSOR : TOTAL CLOSE SCROLL TYPE COMPRESSOR ELEC OUTLET : (5.5+5.5) Kw FAN AIR QTY : 280 m^3/min FAN MOTOR CAP. : 0.32 Kw x 3 REFRIGERANT CONTROL : 29 ~ 100% REFRIGERANT CONNECTION (FOR INSIDE UNIT) LIQUID=ø15.9/GAS=ø31.8 DIMENSION : 1440^{H}x1280^{W}x690^{L}+ 1440^{H}x635^{W}x690^{L} WEIGHT : 359+65 Kg CENTRAL CONTROLLER AND W/OTHER STD ACCESSORIES (2) INSIDE UNIT UNIT-----------------3 EA TYPE : CEILING MOUNTED AND MULTIPLE FLOW (4 WAY FLOW) CASSETTE TYPE ELEC CAP. : 1ø,200V, 50HZ COOLING CAP. : 2.8 Kw HEATING CAP. : 3.2 Kw CONSUMPTION ELEC POWER : 30W FAN AIR QTY : High/Low=13/10 m^3/min DRAIN TYPE : BUILT-IN TYPE MECHANICAL DRAIN-UP SYSTEM DRAIN CONNECTION : 25 VP REFRIGERANT CONNECTION : LIQUID=ø6.4/GAS=ø12.7 WEIGHT : 24 Kg ACCESSORIES : DECORATION PANEL, LONG-LIFE FILTER, WIRED REMOTE CONTROLLER, AND STD ACCESSORIES (3) INSIDE UNIT ---------------------6 EA TYPE : CEILING MOUNTED AND MULTIPLE FLOW (4 WAY FLOW) CASSETTE TYPE ELEC CAP. : 1ø,200V, 50HZ COOLING CAP. : 3.6 Kw HEATING CAP. : 4.0 Kw CONSUMPTION ELEC POWER : 30 W FAN AIR QTY : High/Low=13/10 m^3/min DRAIN TYPE : BUILT-IN TYPE MECHANICAL DRAIN-UP SYSTEM DRAIN CONNECTION : 25 VP REFRIGERANT CONNECTION : LIQUID=ø6.4/GAS=ø12.7 WEIGHT : 24 Kg ACCESSORIES : DECORATION PANEL, LONG-LIFE FILTER, WIRED REMOTE CONTROLLER, AND STD ACCESSORIES	FOR ROOM# 202
2	AIR COOLED TYPE HEAT PUMP A/C SYSTEM (FOR OUTSIDE AIR CONDITIONING SYSTEM)---1 SYSTEM (1) OUTSIDE UNIT ---------------1 EA COOLING CAP. : 22.4 Kw (*1) HEATING CAP. : 25 Kw (*2) ELEC CAP. : 3ø, 200V, 50HZ HEAT EXCHANGER : CROSS FIN COIL TYPE COMPRESSOR : TOTAL CLOSE SCROLL TYPE COMPRESSOR ELEC OUTLET : 2.7+3.0 Kw FAN AIR QTY : 168 m^3/min FAN MOTOR ; 0.32 Kw x2 REFRIGERANT CONNECTION : LIQUID=ø12.7/GAS=ø25.4 REFRIGERANT CONTROL : 15 ~ 100% DIMENSION : 1220^{H} x 1280^{W} x 690^{L} WEIGHT : 225 Kg AND W/OTHER STD ACCESSORIES (2) INSIDE UNIT ---------------- 1 EA TYPE : CEILING SUSPENDED AND DUCT CONNECTION TYPE ELEC CAP. : 1ø,200V, 50HZ COOLING CAP. : 22.4 Kw HEATING CAP. : 12.4 Kw CONSUMPTION ELEC POWER : 330W FAN AIR QTY : 28m^3/min AT EXTERNAL STATIC PRESS 140 Pa DRAIN CONNECTION : 25 A REFRIGERANT CONNECTION : LIQUID=ø12.7/GAS=ø25.4 WEIGHT : 150 Kg ACCESSORIES : DECORATION PANEL, LONG-LIFE FILTER W/FILTER BOX, WIRED REMOTE CONTROLLER, SUPPLY AIR CHAMBER, NO CONDENSATION TYPE LINE-SLIT DIFFUSERS, FLEXIBLE DUCT W/INSULATION AND STD ACCESSORIES	FOR ROOM# 202
3	AIR COOLED MULTIPLE TYPE HEAT PUMP A/C SYSTEM------1 SYSTEM (1) OUTSIDE UNIT -------------------1 EA EQUIVALENT HORSEPOWER : 16 HP COOLING CAP. : 45 Kw (*1) HEATING CAP. : 50 Kw (*2) ELEC CAP. : 3ø, 200V , 50HZ HEAT EXCHANGER : CROSS FIN COIL TYPE COMPRESSOR : TOTAL CLOSE SCROLL TYPE COMPRESSOR ELEC OUTLET : (5.5+5.5) Kw FAN AIR QTY : 358 m^3/min FAN MOTOR CAP. : 0.32 Kw x 4 REFRIGERANT CONTROL : 23 ~ 100% REFRIGERANT CONNECTION (FOR INSIDE UNIT) LIQUID=ø15.9/GAS=ø38.1 DIMENSION : 1440^{H}x1280^{W}x690^{L}+ 1440^{H}x1280^{W}x690^{L} WEIGHT : 361+95 Kg CENTRAL CONTROLLER AND OTHER STD ACCESSORIES (2) INSIDE UNIT -----------------3 EA TYPE : CEILING MOUNTED AND MULTIPLE FLOW (4 WAY FLOW) CASSETTE TYPE ELEC CAP. : 1ø,200V, 50HZ COOLING CAP. : 4.5 Kw HEATING CAP. : 5.0 Kw CONSUMPTION ELEC POWER : 30W FAN AIR QTY : High/Low=15/11 m^3/min DRAIN TYPE : BUILT-IN TYPE MECHANICAL DRAIN-UP SYSTEM DRAIN CONNECTION : 25 VP REFRIGERANT CONNECTION : LIQUID=ø6.4/GAS=ø12.7 WEIGHT : 24 Kg ACCESSORIES : DECORATION PANEL, LONG-LIFE FILTER, WIRED REMOTE CONTROLLER, AND STD ACCESSORIES (3) INSIDE UNIT ---------------------3 EA TYPE : CEILING MOUNTED AND MULTIPLE FLOW (4 WAY FLOW) CASSETTE TYPE ELEC CAP. : 1ø,200V, 50HZ COOLING CAP. : 5.6 Kw HEATING CAP. : 6.3 Kw CONSUMPTION ELEC POWER : 30 W FAN AIR QTY : High/Low=16/11 m^3/min DRAIN TYPE : BUILT-IN TYPE MECHANICAL DRAIN-UP SYSTEM DRAIN CONNECTION : 25 VP REFRIGERANT CONNECTION : LIQUID=ø9.5/GAS=ø15.9 WEIGHT : 24 Kg ACCESSORIES : DECORATION PANEL, LONG-LIFE FILTER, WIRED REMOTE CONTROLLER, AND STD ACCESSORIES (4) INSIDE UNIT ---------------------2 EA TYPE : CEILING MOUNTED AND DOUBLE FLOW (2 WAY FLOW) CASSETTE TYPE ELEC CAP. : 1ø,200V, 50HZ COOLING CAP. : 5.6 Kw HEATING CAP. : 6.3 Kw CONSUMPTION ELEC POWER : 20 W FAN AIR QTY : High/Low=12/9 m^3/min DRAIN TYPE : BUILT-IN TYPE MECHANICAL DRAIN-UP SYSTEM DRAIN CONNECTION : 25 VP REFRIGERANT CONNECTION : LIQUID=ø9.5/GAS=ø15.9 WEIGHT : 40.5 Kg ACCESSORIES : DECORATION PANEL, LONG-LIFE FILTER, WIRED REMOTE CONTROLLER, AND STD ACCESSORIES	FOR ROOM# 213 203
4	CEILING MOUNTED TYPE EXHAUST FAN --------1 EA FAN CAP. : 120 m^3/h AT EXTERNAL PRESSURE 70 Pa ELEC CAP. : 1ø, 100V, 22 W DUCT CONNECTION : ø150 WEIGHT : 2.6 Kg ACCESSORIES : FAN CONTROL SWITCH, GRAVITY DAMPER, ø100 VENT CAP W/INSECT SCREEN AND STD ACCESSORIES	FOR ROOM# 211
5	CEILING MOUNTED TYPE EXHAUST FAN --------2 EA FAN CAP. : 180 m^3/h AT EXTERNAL PRESSURE 60 Pa ELEC CAP. : 1ø, 100V, 25 W DUCT CONNECTION : ø150 WEIGHT : 3.9 Kg ACCESSORIES : FAN CONTROL SWITCH, GRAVITY DAMPER, ø150 VENT CAP W/INSECT SCREEN AND STD ACCESSORIES	FOR ROOM# 210 211
6	CEILING MOUNTED TYPE EXHAUST FAN --------1 EA FAN CAP. : 250 m^3/h AT EXTERNAL PRESSURE 90 Pa ELEC CAP. : 1ø, 100V, 42 W DUCT CONNECTION : ø150 WEIGHT : 4.1 Kg ACCESSORIES : FAN CONTROL SWITCH, GRAVITY DAMPER, ø150 VENT CAP W/INSECT SCREEN AND STD ACCESSORIES	FOR ROOM# 209
7	CEILING MOUNTED TYPE EXHAUST FAN --------2 EA FAN CAP. : 150 m^3/h AT EXTERNAL PRESSURE 80 Pa ELEC CAP. : 1ø, 100V, 25 W DUCT CONNECTION : ø150 WEIGHT : 5.1 Kg ACCESSORIES : FAN CONTROL SWITCH, GRAVITY DAMPER, ø100 VENT CAP W/INSECT SCREEN AND STD ACCESSORIES	FOR ROOM# 212 204
8	CEILING MOUNTED TYPE EXHAUST FAN --------2 EA FAN CAP. : 560 m^3/h AT EXTERNAL PRESSURE 60 Pa 200 m^3/h AT EXTERNAL PRESSURE 60 Pa ELEC CAP. : 1ø, 100V, High/lOW=74/54W25 W DUCT CONNECTION : ø150 WEIGHT : 8.7 Kg ACCESSORIES : FAN CONTROL SWITCH, GRAVITY DAMPER, ø200 VENT CAP W/INSECT SCREEN AND STD ACCESSORIES	FOR ROOM# 207
9	TOTAL HEAT RECOVERY TYPE VENTILATOR ------3 EA MODE: HEAT RECOVERY :High/Medium/Low =650/600/450 m^3/h AT EXTERNAL PRESSURE =100/120/130 Pa NORMAL : High/Medium/Low =650/600/450 m^3/h AT EXTERNAL PRESSURE =100/120/130 Pa ELEC CAP. : 1ø, 100V, High/Midlum/Low =313/297/274W ENTHALPY EFFICIENCY : High/Midlum/Low (SUMMER)=64/64/67 % (WINTER)=67/67/69 % DUCT CONNECTION : ø200 WEIGHT : 48 Kg ACCESSORIES : WIRED CONTROL SWITCH, VENT CAP W/INSECT SCREEN, SUPPLY/ EXHAUST DIFFUSERS, FLEXIBLE DUCT W/ INSULATION, AND STD ACCESSORIES	FOR ROOM# 213 203
10	ELEC HOT WATER STORAGE HEATER -----------1 EA HOT WATER STORAGE CAP. : 322 liter ELEC CAP. : 3ø, 200V, 50HZ, 15 Kw MAX WORKING PRESS : 0.49 MPa BODY : SUS 314L INSULATION : 25mm GLASS WOOL COLD WATER CONNECTION : 25A HOT WATER CONNECTION : 25A DRAIN CONNECTION : 25A THERMOSTAT : 30 ~ 80°C (VARIABLE) DIMENSION : ø560 x 1940 ACCESSORIES : VACUUM BREAKER, CONTROL PANEL W/ INDICATOR LAMPS, OVERHEAT PROTECTION SWITCH, MAGNETIC SWITCH, GROUND FAULT CIRCUIT INTERRUPTER BREAKER,THERMO METER, THERMOSTATS SENSOR, AND STD ACCESSORIES	FOR ROOM# 203
11	REDUCED PRESSURE BACK FLOW PREVENTER--- 1 EA SIZE : 32A MAX WORKING PRESS : 7.6 Kg/cm^2 APPLICABLE TEMP : 1~60°C MATERIAL : BRONZE (BODY) WEIGHT : 6.6 Kg	FOR ROOM# 204
12	PRESSURE REDUCING VALVE ----------------1 EA (FOR COLD WATER) SIZE : 25A SET PRESSURE : 0.294 MPa PRELIMINARY PRESS : LESS THAN 1 MPa ADJUSTABLE SECONDARY PRESS : 0.05 ~0.35 MPa BODY : CAC406 DIAPHRAGM: SYNTHETIC RUBBER	FOR ROOM# 204
13	PRESSURE REDUCING VALVE ----------------1 EA (FOR COLD WATER) SIZE : 25A SET PRESSURE : 0.0882 MPa PRELIMINARY PRESS : LESS THAN 1 MPa ADJUSTABLE SECONDARY PRESS : 0.05 ~0.35 MPa BODY : CAC406 DIAPHRAGM: SYNTHETIC RUBBER	FOR ROOM# 204

NOTES :
DESIGN CONDITION UNDER JIS B8616 :
(*1) INSIDE TEMP: 27°C DB, 19°C WB OUTSIDE: 35°C DB AT EQUIVALENT LENGTH=7.5m & HEIGHT=0 m
(*2) INSIDE TEMP: 20°C DB, OUTSIDE: 7°C DB, 6°C WB AT EQUIVALENT LENGTH=7.5m & HEIGHT=0 m

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS
LTR | DESCRIPTION | PREP. BY | DATE | APPROVED

PWC/OICC/ROICC REVIEW/SUPV.
ACQ DIR: | ELECT:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
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DES. [illegible] DATE 3/28/03 CHK. K.H DATE
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
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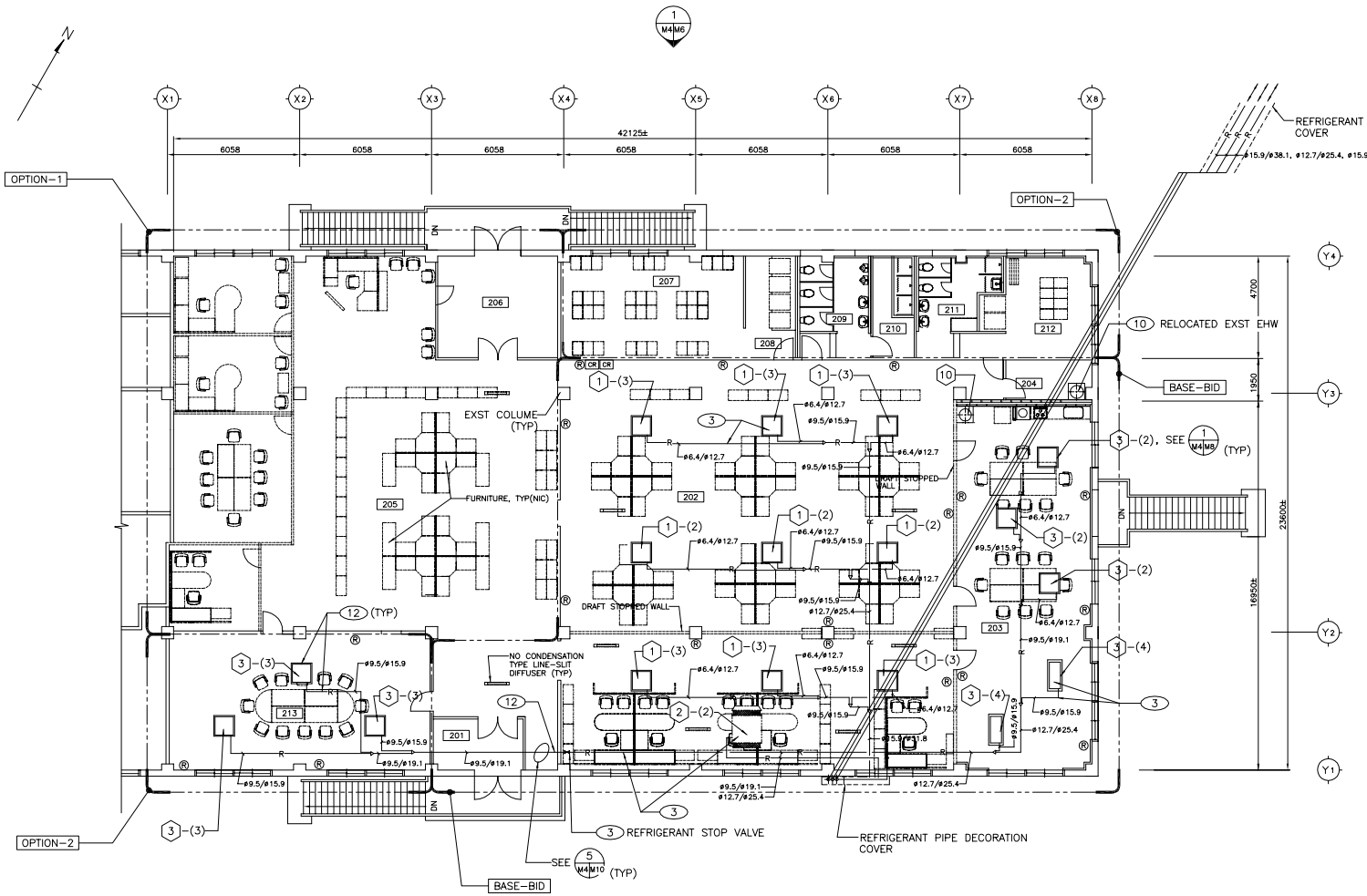
SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE BLDG A40
EQUIPMENT SCHEDULE

CODE ID. NO. 80091
DRAWING SIZE: D
CONST. CONT. NO. N62836-03-C-0115
SPEC. 42-03-0115
NAVFAC DRAWING NO. 7838292
SHEET 15 OF
PWC. DWG. NO. | DIV. NO.
M3

WR # BDKPT



2nd FLOOR A/C SYSTEM PLAN : BASE–BID , OPTION–1 & OPTION–2

SCALE :1/100

GRAPHIC SCALE :

1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR: ELEC:
DSGN/DIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V–E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
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SUBMITTED BY DATE
TITLE
FUNCTIONAL APPROVAL DATE
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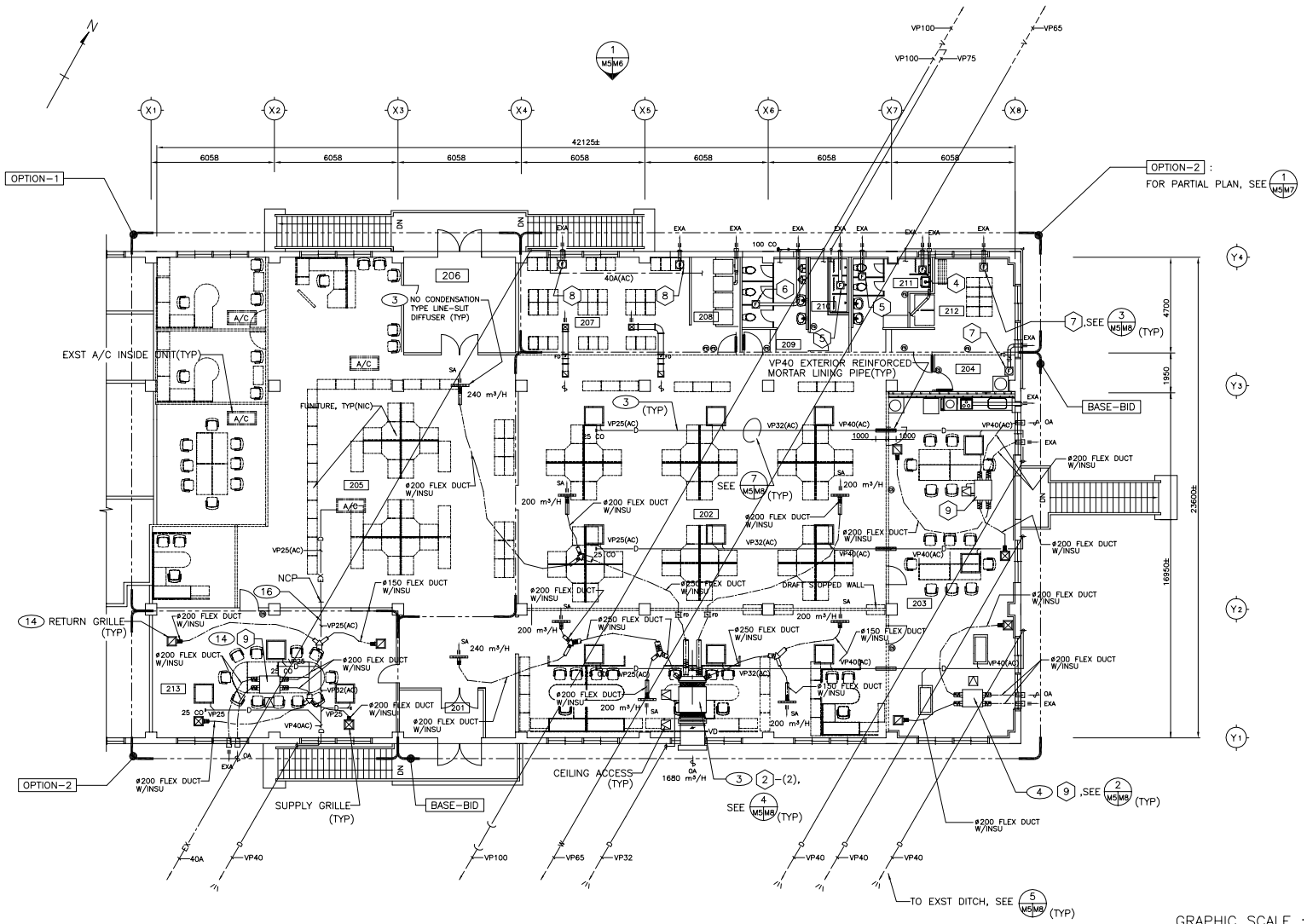
2ND FLOOR A/C PLAN

CODE ID NO.	80091
DRAWING SIZE:	D
CONSTR CONTR NO.	N62836–03–C–0115
SPEC	42 –03–0115
NAVFAC DRAWING NO.	7838293
SHEET	16 OF 43
PWC DWG NO.	DIV NO. M4

WO # BDKPT



2ND FLOOR VENTILATION SYSTEM & DRAIN PIPING PLAN: BASE-BID , OPTION-1 & OPTION-2

SCALE :1/100

GRAPHIC SCALE :

1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

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DRAWN BY DATE

SUBMITTED BY DATE

FUNCTIONAL APPROVAL DATE

APPROVED DATE

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PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR: ELEC:

DSGNDIR: CIVIL:

PDE/EIC: FIRE PROT:

ARCH: V-E:

STRUCT: ROICC:

MECH:

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

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RENOVATE OFFICE BLDG A40

2ND FLOOR VENTILATION SYSTEM AND DRAIN PIPING PLAN

CODE ID NO. 80091

DRAWING SIZE: D

CONSTR CONTR NO. N62836-03-C-0115

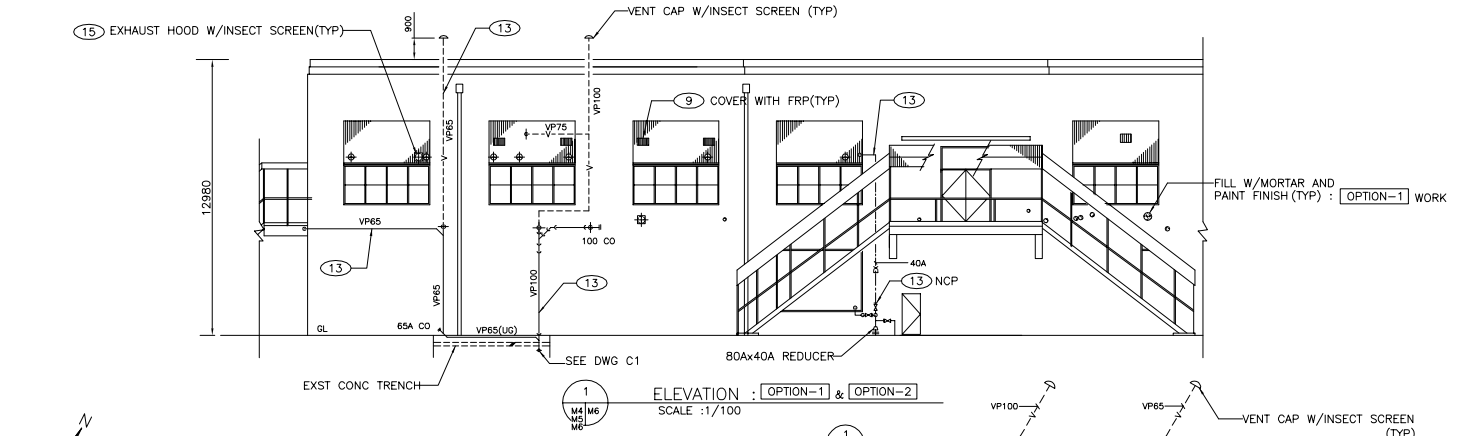
SPEC 42 -03-0115

NAVFAC DRAWING NO. 7838294

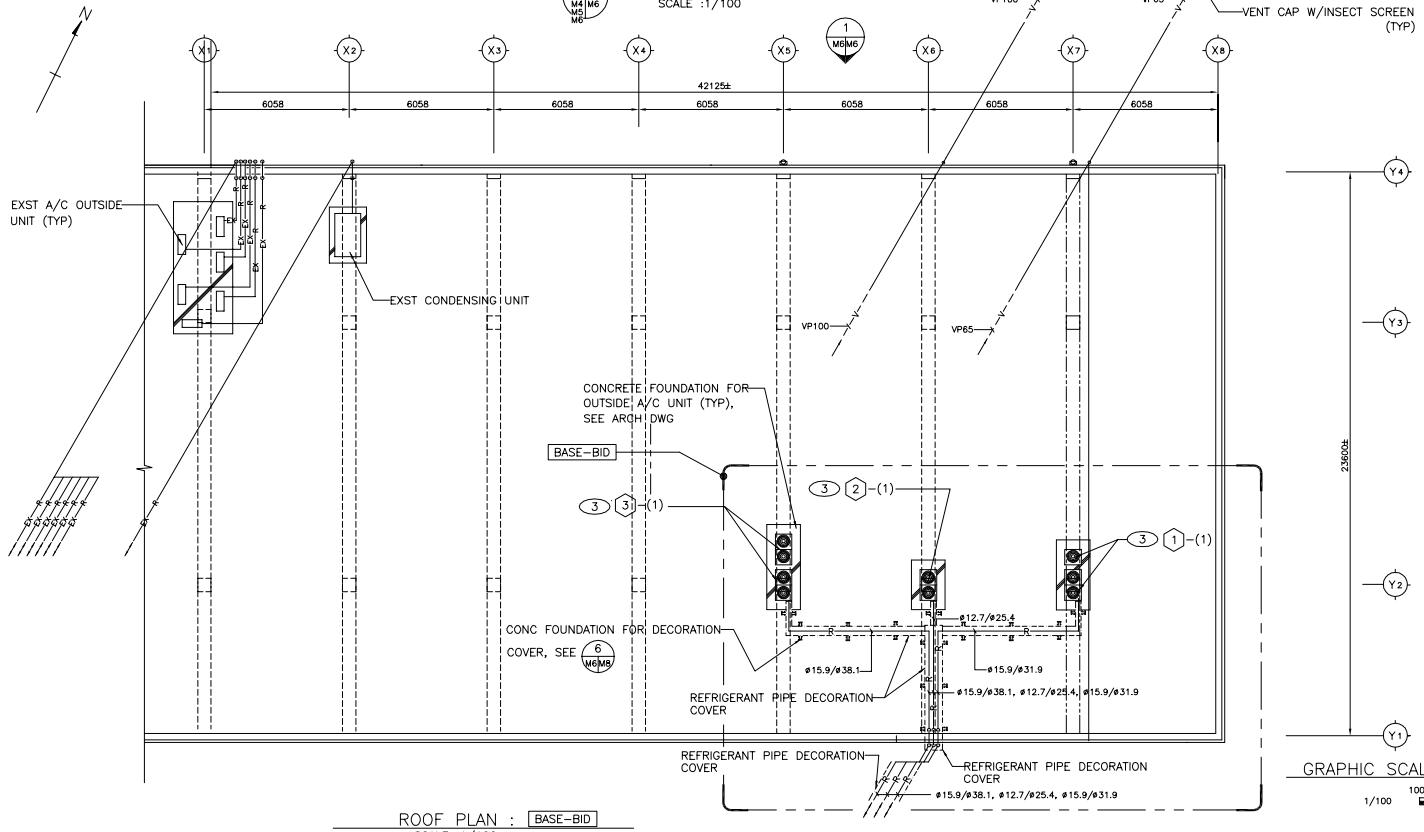
SHEET 17 OF 43

PWC DWG NO. DIV NO. M5

WO # BDKPT



1 M4 M6 M5 M6 — ELEVATION : OPTION-1 & OPTION-2
SCALE :1/100



ROOF PLAN : BASE-BID
SCALE :1/100

GRAPHIC SCALE :
1/100
1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PUBLIC WORKS CENTER, JAPAN
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SUBMITTED BY DATE
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APPROVED DATE
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ACQ DIR:
DSGN/DIR:
ARCH:
STRUCT:
MECH:
ELEC:
CIVIL:
FIRE PROT:
V-E:
ROICC:

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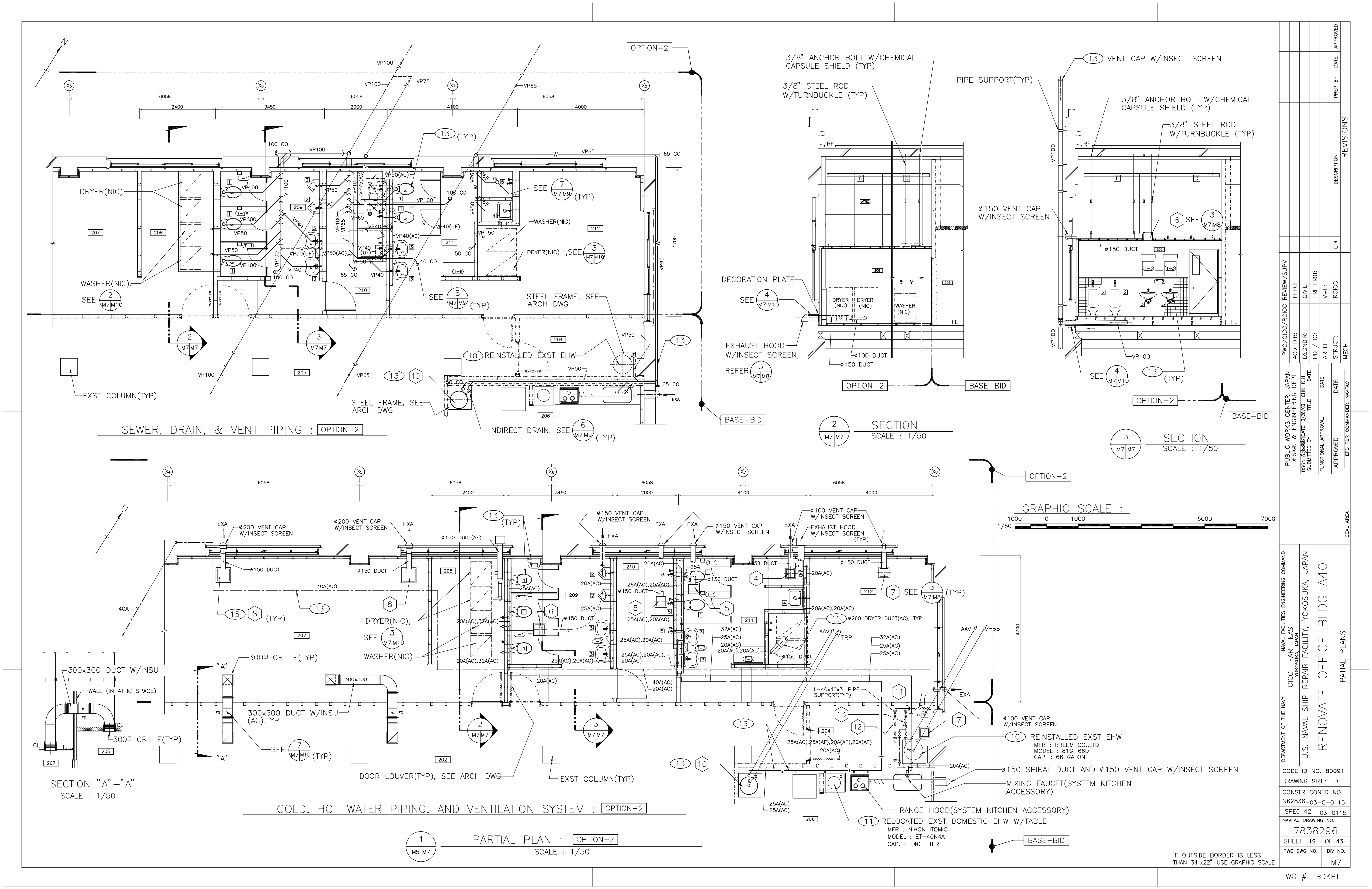
RENOVATE OFFICE BLDG A40

PLAN AND ELEVATION

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO.
7838295
SHEET 18 OF 43
PWC DWG NO.
DIV NO. M6

WO # BDKPT


SEWER, DRAIN, & VENT PIPING : OPTION-2
COLD, HOT WATER PIPING, AND VENTILATION SYSTEM : OPTION-2
1 M5 M7 PARTIAL PLAN : OPTION-2
SCALE : 1/50
2 M7 M7 SECTION
SCALE : 1/50
3 M7 M7 SECTION
SCALE : 1/50
SECTION "A"-"A"
SCALE : 1/50
OPTION-2
BASE-BID
3/8" ANCHOR BOLT W/CHEMICAL CAPSULE SHIELD (TYP)
3/8" STEEL ROD W/TURNBUCKLE (TYP)
DECORATION PLATE
EXHAUST HOOD W/INSECT SCREEN, REFER 3 M7 M8
13 VENT CAP W/INSECT SCREEN
PIPE SUPPORT(TYP)
ø150 VENT CAP W/INSECT SCREEN
DRYER(NIC)
WASHER(NIC)
EXST COLUMN(TYP)
STEEL FRAME, SEE ARCH DWG
10 REINSTALLED EXST EHW
INDIRECT DRAIN, SEE 6 M7 M9 (TYP)
300x300 DUCT W/INSU
WALL (IN ATTIC SPACE)
300□ GRILLE(TYP)
300x300 DUCT W/INSU (AC),TYP
DOOR LOUVER(TYP), SEE ARCH DWG
EXST COLUMN(TYP)
ø200 VENT CAP W/INSECT SCREEN
ø150 VENT CAP W/INSECT SCREEN
ø100 VENT CAP W/INSECT SCREEN
EXHAUST HOOD W/INSECT SCREEN (TYP)
15 ø200 DRYER DUCT(AC), TYP
L-40x40x3 PIPE SUPPORT(TYP)
ø100 VENT CAP W/INSECT SCREEN
10 REINSTALLED EXST EHW
MFR : RHEEM CO.,LTD
MODEL : 81G-66D
CAP. : 66 GALON
ø150 SPIRAL DUCT AND ø150 VENT CAP W/INSECT SCREEN
MIXING FAUCET(SYSTEM KITCHEN ACCESSORY)
RANGE HOOD(SYSTEM KITCHEN ACCESSORY)
11 RELOCATED EXST DOMESTIC EHW W/TABLE
MFR : NIHON ITOMIC
MODEL : ET-40N4A
CAP. : 40 LITER
GRAPHIC SCALE :
1/50
IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE
REVISIONS
PUBLIC WORKS CENTER, JAPAN DESIGN & ENGINEERING DEPT
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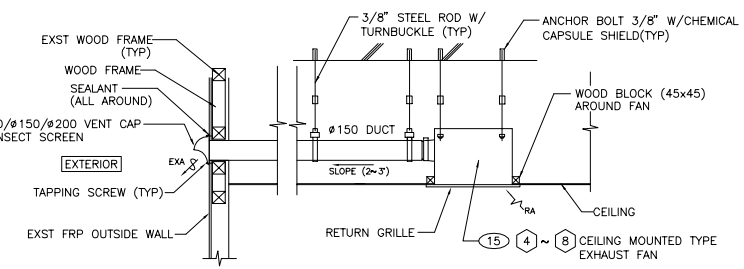
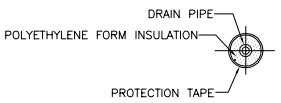
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE BLDG A40
PATIAL PLANS
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836-03-C-0115
SPEC 42-03-0115
NAVFAC DRAWING NO.
7838296
SHEET 19 OF 43
PWC DWG NO.
DIV NO.
M7

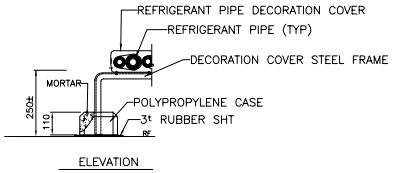
WO # BDKPT

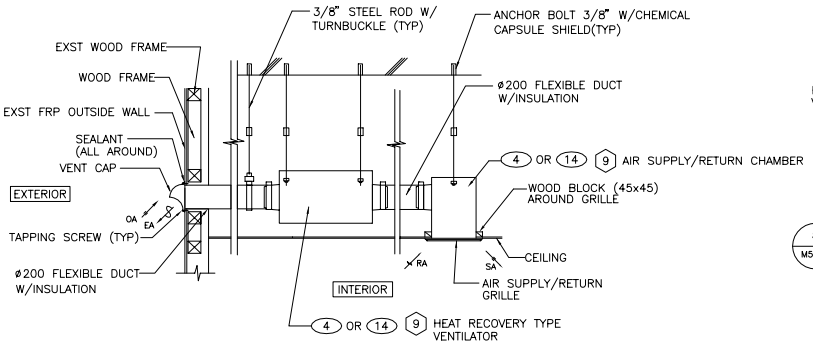


3 M5 M7 M8 CEILING MOUNTED TYPE EXHAUST FAN (TYP)
NOT TO SCALE

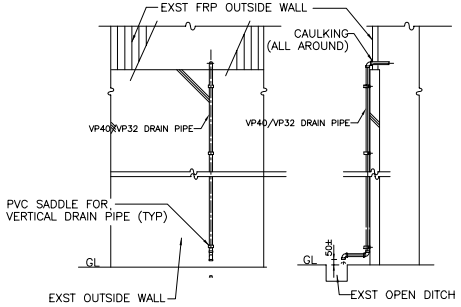


7 M5 M8 DRAIN PIPE FOR A/C SYSTEM (FOR INTERIOR)
NOT TO SCALE



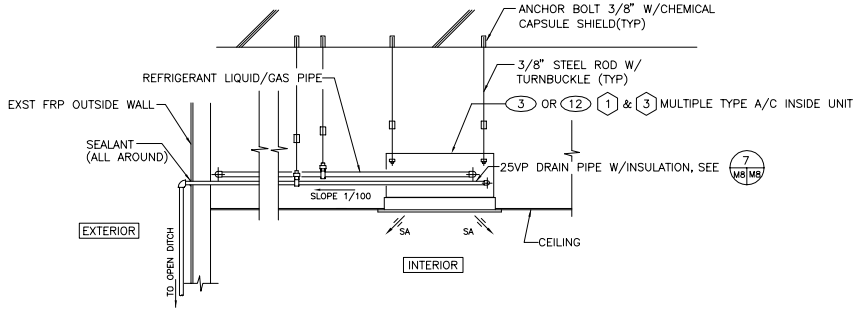


2 M5 M8 HEAT RECOVERY TYPE VENTILATOR
NOT TO SCALE

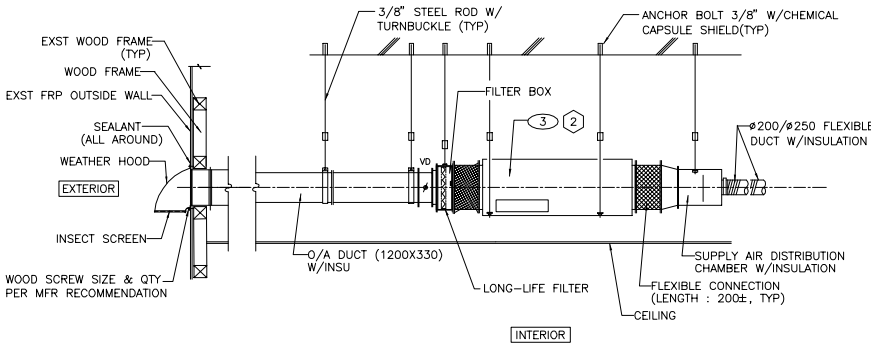


5 M5 M8 EXTERIOR DRAIN PIPE FOR A/C SYSTEM
NOT TO SCALE

6 M6 M8 CONC FOUNDATION FOR DECORATION COVER
NOT TO SCALE



1 M4 M8 MULTIPLE TYPE HEAT PUMP A/C INSIDE UNIT (TYP)
NOT TO SCALE



4 M5 M8 AIR COOLED TYPE HEAT PUMP A/C SYSTEM (FOR OUTSIDE AIR CONDITIONING SYSTEM)
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED

PREP BY

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
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MECH:

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OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

DETAIL (1)

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838297
SHEET 20 OF 43
PWC DWG NO. DIV NO. M8

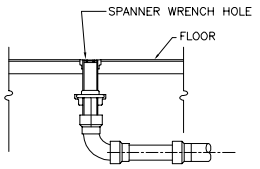
WO # BDKPT

PLUMBING FIXTURE SCHEDULE

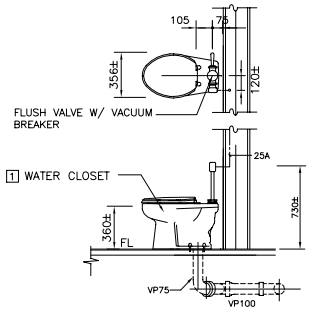
	SYMBOL	FIXTURE	QTY	PIPE CONNECTION C W	H W	WASTE	DESCRIPTION	REMARKS
1	WC	WATER CLOSET	5	25A		75	WESTERN AND SIPHON JET TYPE ACCESSORIES: FLUSH VALVE W/ VACUUM BREAKER SEAT W/SEAT COVER AND OTHER STD ACCESSORIES	
2	UR	URINAL	2	20A		50	STALL TYPE ACCESSORIES: FLASH VALVE, AND OTHER STD ACCESSORIES	
3	LAV	LAVATORY	4	15A	15A	40	WALL MOUNTED TYPE W/P-TRAP AND MIXING FAUCET AND OTHER STD ACCESSORIES	
4	SS	SLOP SINK	1	15A		65	RIM COVER, COLD WATER FAUCET, P-TRAP AND OTHER STD ACCESSORIES	
5	SH	SHOWER SET	4	20A	20A	65	MIXING SHOWER HEAD, MIXING FAUCET W/THERMOSTAT AND OTHER STD ACCESSORIES	

TOILET ACCESSORY SCHEDULE

SYMBOL	NAME	QTY	DESCRIPTION
T-1	PAPER HOLDER FOR WATER CLOSET	5	WALL MOUNTED, SIZE : 134mm(L) x 77mm(H) MATERIAL : STAINLESS STL
T-2	PAPER TOWEL DISPENSER	2	WALL MOUNTED EXPOSED TYPE SIZE : 145mm(H) x 250mm(L) x 138mm(W)
T-3	MIRROR FOR LAVATORY	4	WALL MOUNTED SIZE : 363mm(W) X 455mm(H) X 5mm(THK) MATERIAL : GLASS W/ STAINLESS STL BRACKET CORROSION PROOF TYPE
T-4	GLASS SHELF FOR LAVATORY	4	BRACKET SURFACE MOUNTED SIZE : 457mm(L) x 134mm(W) MATERIAL : GLASS W/ STAINLESS STL BRACKET
T-5	SOAP DISH FOR SHOWER	5	SIZE : 128mm(W) x 86mm(D) x 56mm(H) MATERIAL : POTTERY
T-6	MIRROR FOR DRESSING TABLE	1	WALL MOUNTED SIZE : 900mm(W) X 500mm(H) X 5mm(THK) MATERIAL : GLASS W/ STAINLESS STL BRACKET CORROSION PROOF TYPE



8 M7 M9 CLEAN OUT
NOT TO SCALE



2 M9 M9 WATER CLOSET
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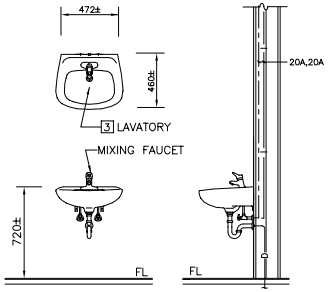
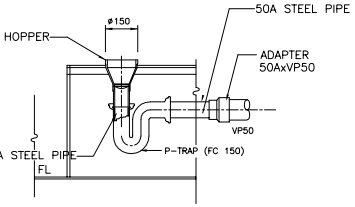
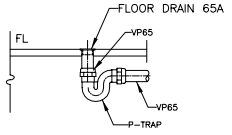


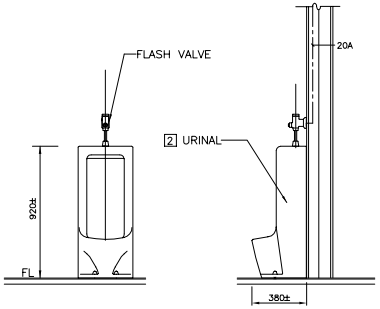
4 M9 M9 LAVATORY
NOT TO SCALE



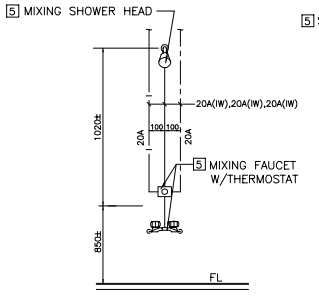
6 M7 M10 M9 INDIRECT DRAIN HOPPER
NOT TO SCALE

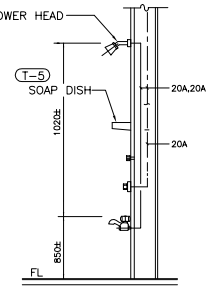


7 M7 M9 FLOOR DRAIN
NOT TO SCALE

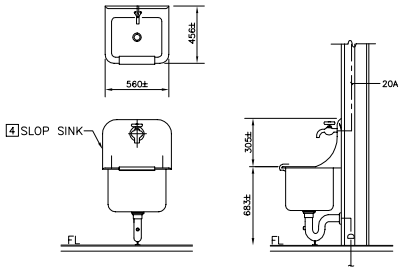


1 M9 M9 URINAL
NOT TO SCALE





3 M9 M9 SHOWER SET
NOT TO SCALE



5 M8 M9 SLOP SINK
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SURVEY

ACQ DIR:	ELEC:		
DSGNDIR:	CIVIL:		
PDE/EIC:	FIRE PROT:		
ARCH:	V-E:		
STRUCT:	ROICC:		
MECH:			

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DESIGN SECTION	TITLE	DATE
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APPROVED		DATE

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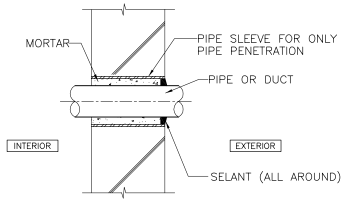
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

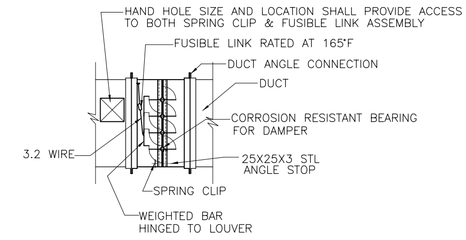
DETAIL (2)

CODE ID NO. 80091	
DRAWING SIZE: D	
CONSTR CONTR NO. N62836-03-C-0115	
SPEC 42 -03-0115	
NAVFAC DRAWING NO. 7838298	
SHEET 21 OF 43	
PWC DWG NO.	DIV NO. M9

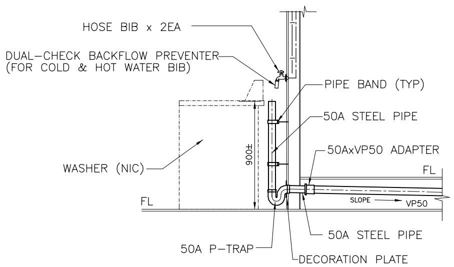
WO # BDKPT



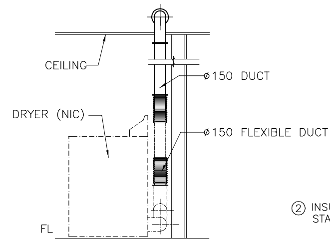
4 M7 M10 CONC WALL PENETRATION
NOT TO SCALE



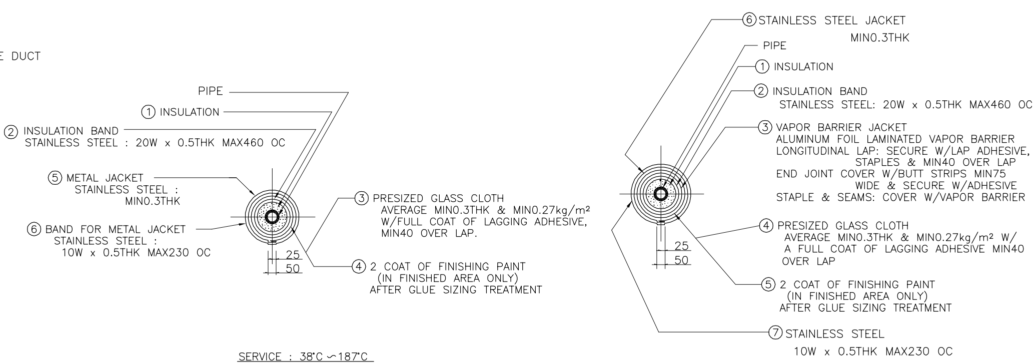
7 M7 M10 FIRE DAMPER
NOT TO SCALE



2 M7 M10 WASHER
NOT TO SCALE



3 M7 M10 DRYER
NOT TO SCALE



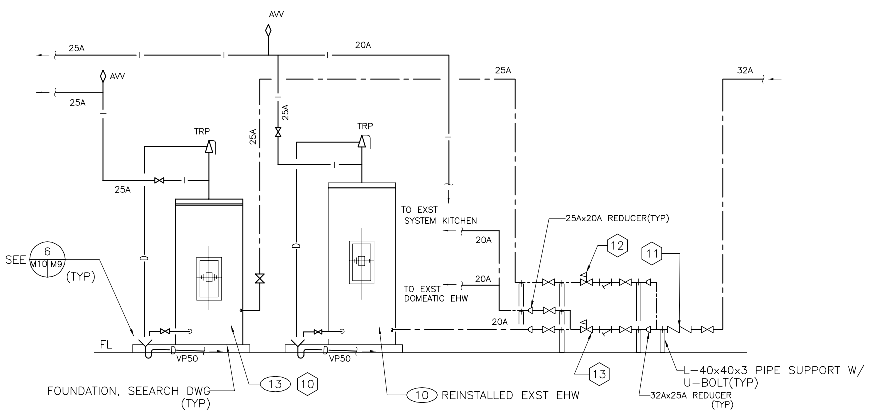
SERVICE : 38°C～187°C

LOCATION	APPLICABLE ITEM
INTERIOR	①②③ & ④
EXTERIOR	①②③⑤ & ⑥

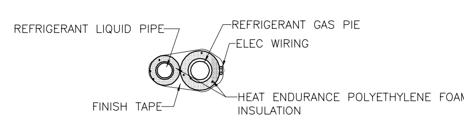
SERVICE : -1.1°C～37°C

LOCATION	APPLICABLE ITEM
INTERIOR	①②③④ & ⑤
EXTERIOR	①②③④⑥ & ⑦

6 M8 M10 COLD & HOT WATER PIPING INSULATION
NOT TO SCALE



1 M10 M10 EHW PIPING DIAGRAM
NOT TO SCALE



5 M4 M10 REFRIGERANT PIPING INSULATION
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR | DESCRIPTION | DATE | APPROVED | PREP BY
REVISIONS

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | ELEC:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN | DATE 3/28/03 | CHK K.H.
SUBMITTED BY | TITLE
FUNCTIONAL APPROVAL | DATE
APPROVED | DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE BLDG A40
DETAIL (3)

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838299
SHEET 22 OF 43
PWC DWG NO. | DIV NO. M10

WO # BDKPT

GENERAL DESCRIPTION OF WORK:
(ELECTRICAL)

BASE-BID

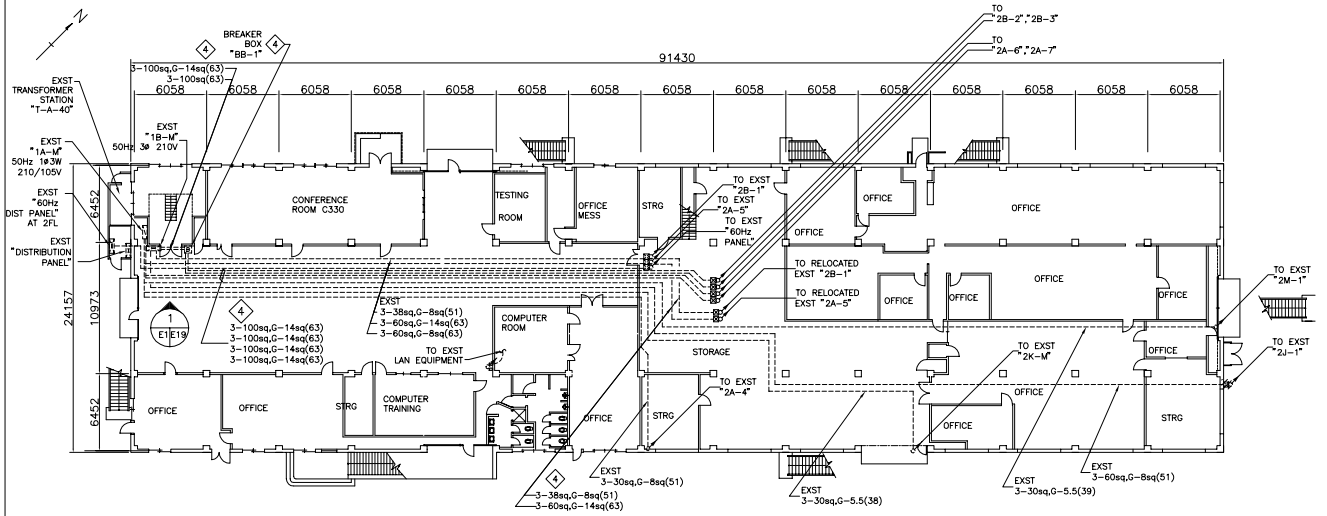
1. REMOVE EXISTING POWER PANELBOARDS "2J-1","FR/RE AND WARMER PANEL", LIGHTING PANELBOARDS "2M-1", STEP-UP XFMR FOR 60HZ COMPUTER AND CONDUIT WIRING AS SHOWN.
2. REMOVE EXISTING LIGHTING FIXTURES, TUMBLER SWITCHES, EXIT LIGHTS, EMERGENCY LIGHTING, BREAKER BOX, RECEPTACLE OUTLETS, TV OUTLETS, COMBINED FIRE ALARM STATIONS AND CONDUIT WIRING AS SHOWN.
3. RELOCATE EXISTING LIGHTING FIXTURES, EXISTING HUB FOR LAN, EXIT LIGHT AND COMBINED FIRE ALARM STATIONS AS SHOWN.
4. PROVIDE NEW POWER PANELBOARDS "2B-2","2B-3", BREAKER BOX "BB-1", LIGHTING PANELBOARDS "2A-6","2A-7", DISCONNECTING SWITCHES FOR A/C, HOT WATERS AND CONDUIT WIRING AS SHOWN.
5. PROVIDE NEW LIGHTING FIXTURES, EMERGENCY LIGHTING, TUMBLER SWITCHES, RECEPTACLE OUTLETS AND CONDUIT WIRING AS SHOWN.
6. PROVIDE NEW TV OUTLETS, LAN OUTLETS, TELEPHONE OUTLETS, TERMINAL BOX FOR TELEPHONE AND CONDUIT WIRING AS SHOWN.
7. PROVIDE NEW HEAT DETECTORS AND CONDUIT WIRING AS SHOWN.
8. PROVIDE NEW BREAKERS IN EXISTING PANELBOARD "1A-M" AS SHOWN.
9. PROVIDE NEW CABLE ENTRANCE HOLES AND BUS-BAR FOR TERMINATION OF NEW BRANCH CABLES ON PRIMARY SIDE OF MAIN BREAKER IN "1B-M".
10. PAINT AT ALL NEW EXPOSED CONDUITS AND STEEL SURFACES.

OPTION-1

11. REMOVE EXISTING BREAKER BOX FOR HOT WATER, POWER CONDITIONER FOR 60HZ COMPUTER, POWER PANELBOARD"60Hz PANEL" AND CONDUIT WIRING AS SHOWN.
12. REMOVE EXISTING LIGHTING FIXTURES, TUMBLER SWITCHES, EXIT LIGHTS, BUTTON TELEPHONE, RECEPTACLE OUTLETS AND CONDUIT WIRING AS SHOWN.
13. RELOCATE EXISTING POWER PANELBOARD "2B-1", LIGHTING PANELBOARD "2A-5", LIGHTING FIXTURES, EXIT LIGHTS AND COMBINED FIRE ALARM STATIONS AS SHOWN.
14. PROVIDE NEW LIGHTING FIXTURES, EMERGENCY LIGHTING, TUMBLER SWITCHES, RECEPTACLE OUTLETS AND CONDUIT WIRING AS SHOWN.
15. PROVIDE NEW TV PANEL WITH 6-BRANCH BOOSTER, TV OUTLETS, LAN OUTLETS, TELEPHONE OUTLETS AND CONDUIT WIRING AS SHOWN.
16. PROVIDE NEW HEAT DETECTORS AND CONDUIT WIRING AS SHOWN.
17. PROVIDE NEW BLANK PLATE FOR UNUSED RECEPTACLE OUTLETS AS SHOWN.
18. PAINT AT ALL NEW EXPOSED CONDUITS AND STEEL SURFACES.

OPTION-2

19. REMOVE EXISTING POWER PANELBOARDS "2K-M A/C", LIGHTING PANELBOARDS "2K-M" AND CONDUIT WIRING AS SHOWN.
20. REMOVE EXISTING LIGHTING FIXTURES, TUMBLER SWITCHES, RECEPTACLE OUTLETS AND CONDUIT WIRING AS SHOWN.
21. PROVIDE NEW LIGHTING FIXTURES, EMERGENCY LIGHTING, TUMBLER SWITCHES, RECEPTACLE OUTLETS, BREAKER BOX "BB-2" FOR HOT WATER AND CONDUIT WIRING AS SHOWN.
22. PROVIDE NEW TV OUTLETS, LAN OUTLETS, TELEPHONE OUTLETS AND CONDUIT WIRING AS SHOWN.
23. PROVIDE NEW HEAT DETECTORS AND CONDUIT WIRING AS SHOWN.
24. PROVIDE NEW BLANK PLATE FOR UNUSED RECEPTACLE OUTLETS AS SHOWN.
25. PAINT AT ALL NEW EXPOSED CONDUITS AND STEEL SURFACES.



1st FLOOR

MAIN DISTRIBUTION PLAN : BASE-BID & OPTION-1
SCALE: 1/200

GRAPHIC SCALE:
1/200 0 5000 10000 20000 30000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGN/DIR: CIVIL:
FDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DIV
SUBMITTED BY: DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
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SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

SCOPE, MAIN DISTRIBUTION PLAN

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838300
SHEET 23 OF 42
PWC DWG NO. DIV NO. E1

NOTES:

1. FOR APPLICABLE NOTES, ABBREVIATIONS AND SYMBOL SEE DWG A1.
2. NEW WIRES AND CABLES SHALL BE ECOLOGIC TYPE.
3. UNLESS OTHERWISE INDICATED, HEIGHT OF NEW APPARATUS SHALL BE AS FOLLOWS;

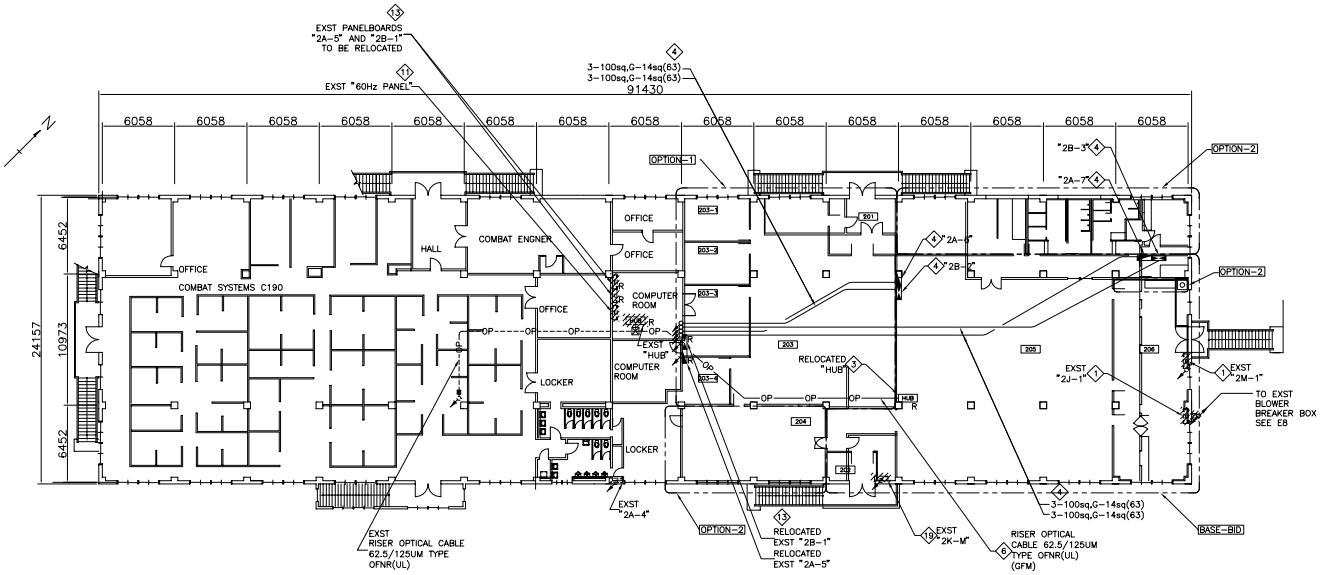
PANELBOARD	——	1800 ABOVE FINISHED FLOOR TO TOP OF DEVICE
TUMBLER SWITCH, A/C,FAN CONTROL SWITCH RECEPTACLE OUTLET	——	1200 ABOVE FINISHED FLOOR TO CENTER OF THE DEVICE
TELEPHONE, TV OUTLET LAN OUTLET	——	300 ABOVE FINISHED FLOOR TO CENTER OF THE DEVICE

LEGEND:

	EXST	EXST TO BE RELOCATED	RELOCATED	NEW
POWER PANELBOARD		R	R	
LIGHTING PANELBOARD		R	R	
HUB FOR LAN SYSTEM		R	HUB R	
FLUORESCENT LIGHT 2–40W, EXPOSED		R	R	
FAN CONTROL SWITCH		R	R	
WIRING REMOTE CONTROLLER FOR AIR COND		R	R	
PULL BOX				
CONDUIT WIRING, CONCEALED				
CONDUIT WIRING, EXPOSED				
OPTICAL CABLE FOR LAN CONCEALED (GFM)	—OP—			—OP—
RUN UP, RUN DOWN				
EXST MATERIAL TO BE REMOVED				

ABBREVIATIONS:

ELEC	– ELECTRICAL	DCP	– DISCONNECTING POINT
MHD	– MATERIAL HANDLING	NCP	– NEW CONNECTION POINT
GALV	– GALVANIZED	DIST	– DISTRIBUTION
MECH	– MECHANICAL	GFM	– GOVERNMENT FURNISHED MATERIAL
WP	– WEATHERPROOF		
EQPT	– EQUIPMENT		
XFMR	– TRANSFORMER		
ST	– STATION		
MTD	– MOUNTED		
GTB	– GROUND TERMINAL BAR		
NTB	– NEUTRAL TERMINAL BAR		
PVC	– HIGH–IMPACT POLYVINYL CHLORIDE CONDUIT		
CONC	– CONCRETE		
sq	– SQUARE MILIMATER		
GL	– GROUND LEVEL		



2nd FLOOR

MAIN DISTRIBUTION PLAN : BASE–BID , OPTION–1 & OPTION–2
SCALE: 1/200

GRAPHIC SCALE:
1/200 0 5000 10000 20000 30000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ELEC: CIVIL: FIRE PROT: V–E: ROICC:
ACQ DIR: DSGN DIR: PDE/EIC: ARCH: STRUCT: MECH:
PUBLIC WORKS CENTER, JAPAN DESIGN & CONSTRUCTION DEPARTMENT
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

SCOPE, MAIN DISTRIBUTION PLAN

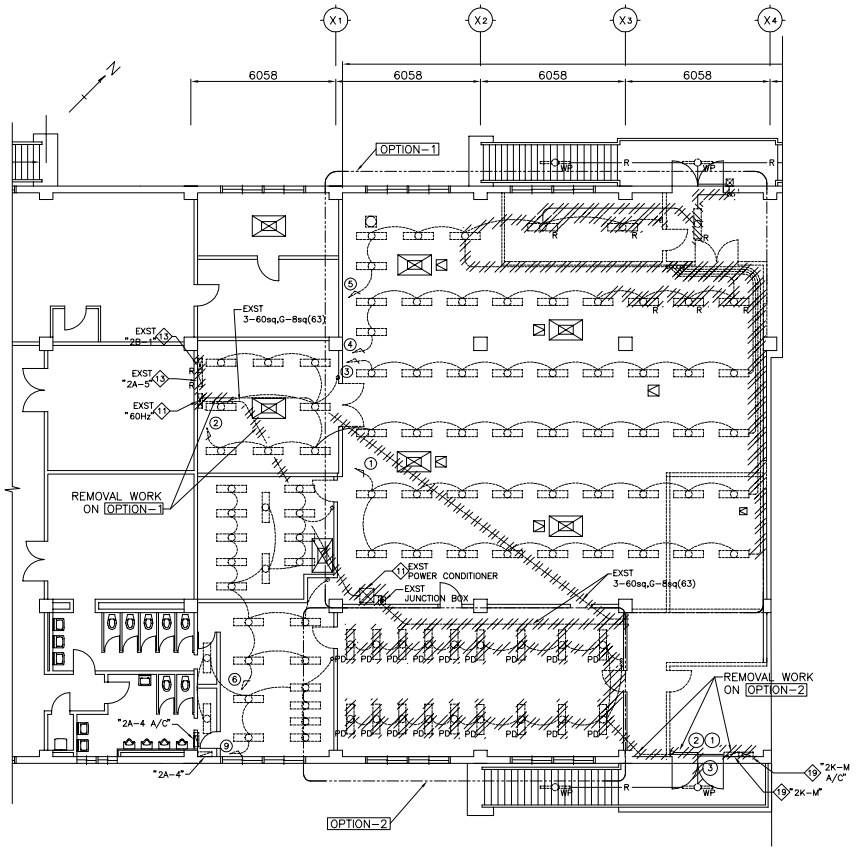
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836–03–C–0115
SPEC 42 –03–0115
NAVFAC DRAWING NO. 7838301
SHEET 24 OF 42
PWC DWG NO. DIV NO. E2

LEGEND:

	EXST	EXST TO BE REMOVED
FLUORESCENT LIGHT: EXPOSED 100V 2-40W		
FLUORESCENT LIGHT: EXPOSED 100V 2-40W PIPE OR CHAIN PENDANT TYPE		PD
FLUORESCENT LIGHT: EXPOSED 100V 1-40W WEATHERPROOF W/GUARD	WP	
FLUORESCENT LIGHT: EXPOSED 100V 1-40W WEATHERPROOF W/ACRILYC COVER		
TUMBLER SWITCH, 3-WAY 1P-250V 15A		
TUMBLER SWITCH 1P-250V 15A		
PULL BOX		
JUNCTION BOX		
CIRCUIT NUMBER "X" IS CIRCUIT NUMBER	(X)	

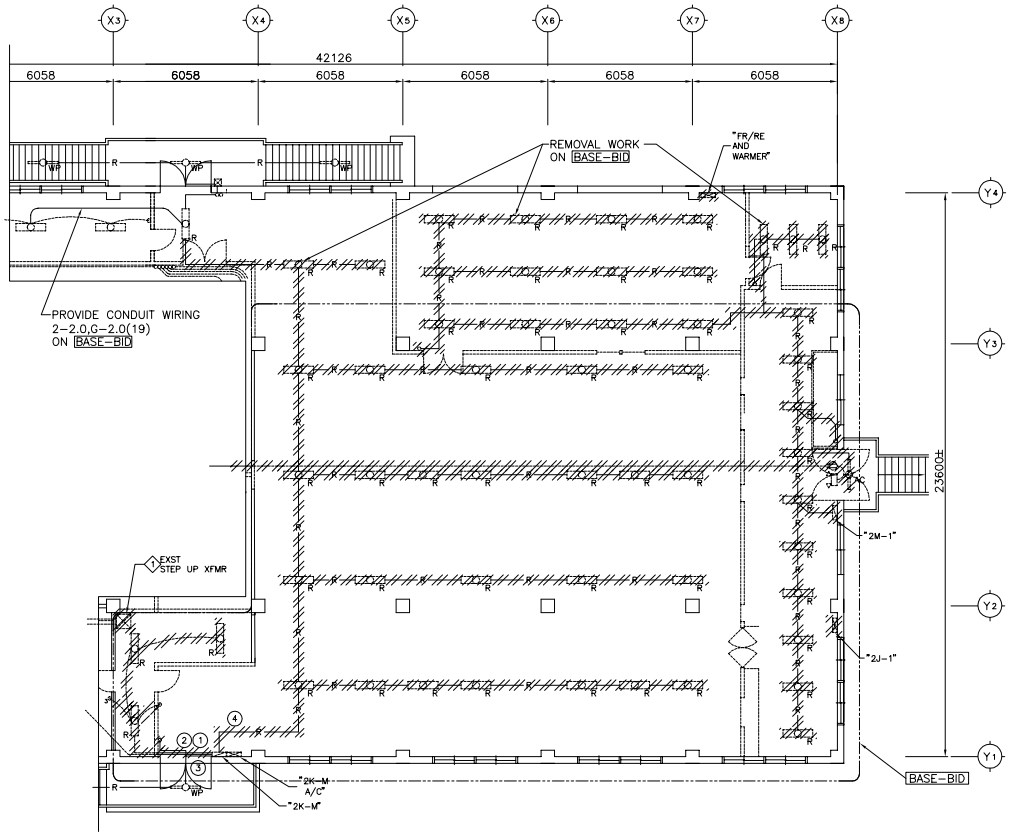
LEGEND:

	EXST	EXST TO BE REMOVED
LIGHTING PANELBOARD		"2M-1" "2K-M"
POWER PANELBOARD		"FR/RE AND WARMER" "2J-1" "2K-M A/C"
POWER CONDITIONER AND STEP UP XFMR		AC
JUNCTION BOX FOR POWER CONDITIONER		
CONDUIT WIRING , CONCEALED		
RACE WAY AND CONDUIT WIRING , EXPOSED	—R—	



EXIST AND REMOVAL LIGHTING PLAN AT 2nd FLOOR : OPTION-1 & OPTION-2

SCALE :1/100



EXIST AND REMOVAL LIGHTING PLAN AT 2nd FLOOR : BASE-BID

SCALE :1/100

GRAPHIC SCALE :

1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS				
LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
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SUBMITTED BY: DATE
TITLE
FUNCTIONAL APPROVAL DATE
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SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

EXIST AND REMOVAL LIGHTING PLAN

CODE ID NO.	80091
DRAWING SIZE:	D
CONSTR CONTR NO.	N62836-03-C-0115
SPEC	42 -03-0115
NAVFAC DRAWING NO.	7838302
SHEET	25 OF 42
PWC DWG NO.	DIV NO. E3

WO # BDKPT

LEGEND:

	EXST	NEW
FLUORESCENT LIGHT: 100V 2-40W RECESSED		
FLUORESCENT LIGHT: DIMMER TYPE 100V 2-40W RECESSED		
FLUORESCENT LIGHT: 100V 2-40W EXPOSED		
FLUORESCENT LIGHT: 100V 2-40W EXPOSED (RELOCATE)		R
FLUORESCENT LIGHT: 100V 1-40W EXPOSED WEATHERPROOF	WP	
FLUORESCENT LIGHT: 100V 1-40W EXPOSED		
FLUORESCENT LIGHT: 100V 1-40W EXPOSED W/ACRYLIC COVER		AC
FLUORESCENT LIGHT: 100V 1-20W EXPOSED W/ACRYLIC COVER		AC
INCANDESCENT LIGHT: WALL MOUNT 100V 1-20W EXPOSED MOISTURE PROOF		

LEGEND:

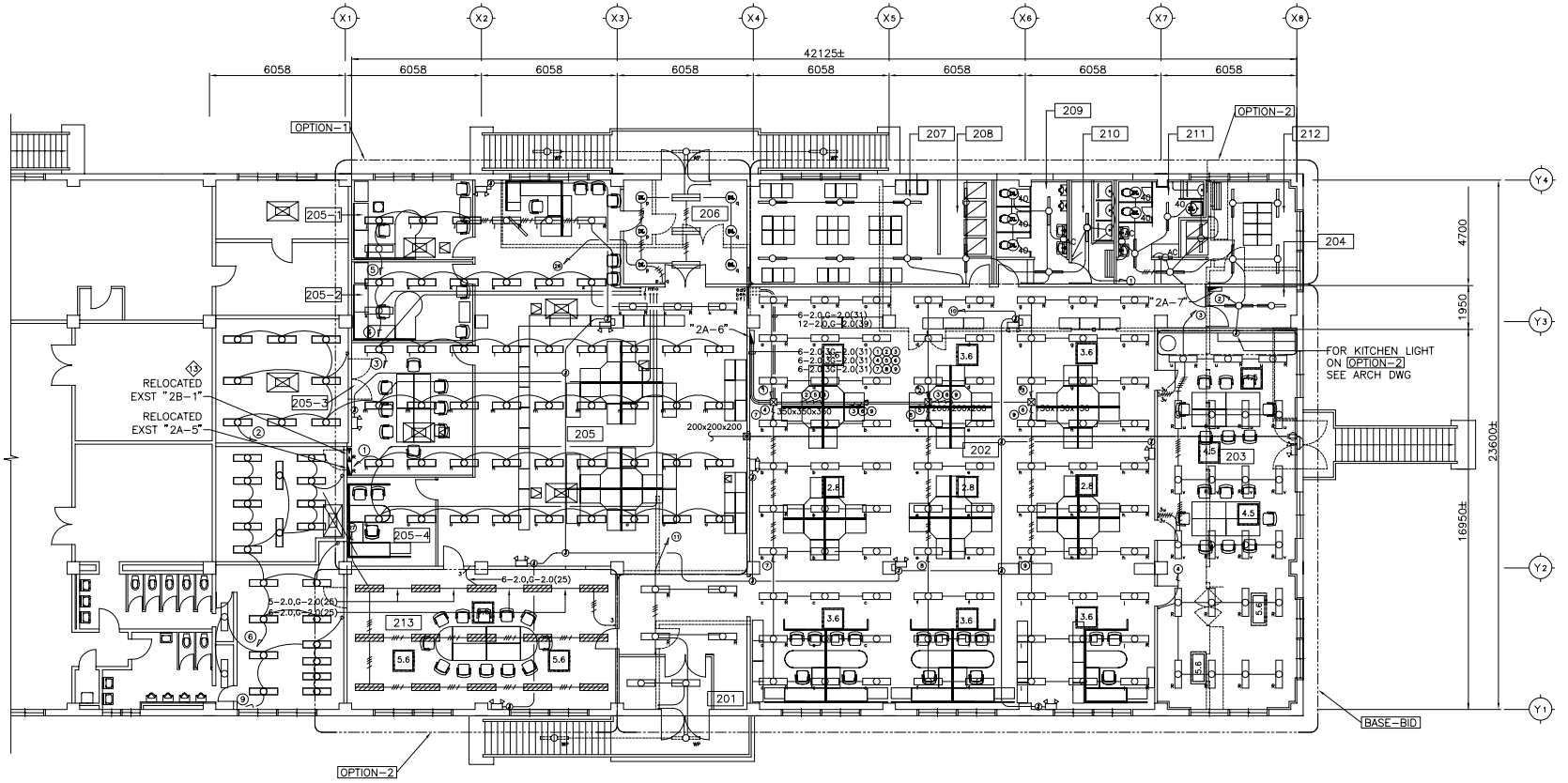
	EXST	NEW
INCANDESCENT LIGHT: 100V 60W DOWN LIGHT		
INCANDESCENT LIGHT: 100V 40W DOWN LIGHT		40
EMERENCY LIGHTING		
LIGHTING PANELBOARD		
POWER PANELBOARD		

LEGEND:

	EXST	NEW
TUMBLER SWITCH W/DIMMER CONTROL, 3-WAY 100V 15A		3
TUMBLER SWITCH, 3-WAY 300V 15A		3
TUMBLER SWITCH 1P-300V 15A		
PULL BOX		
JUNCTION BOX		
CONDUIT WIRING , CONCEALED		
CONDUIT WIRING , EXPOSED	-------	
CIRCUIT NUMBER "X" IS CIRCUIT NUMBER		X

WIRE SIZE AND CONDUIT SIZE:

- 2-2.0, G-2.0 (19)
- 3-2.0, G-2.0 (25)
- 4-2.0, G-2.0 (25)
- 5-2.0, G-2.0 (25)
- 6-2.0, G-2.0 (31)
- 7-2.0, G-2.0 (31)
- 4-2.0, 2-G-2.0 (25)
- 2-2.0, G-2.0 (19)
- 4-2.0, 2-G-2.0 (25)
- 6-2.0, 3-G-2.0 (31)



NEW LIGHTING PLAN AT 2nd FLOOR: BASE-BID , OPTION-1 & OPTION-2

SCALE :1/100

GRAPHIC SCALE :

1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR:	ELEC:		
DSGN/DIR:	CIVIL:		
DSGN SUPV:	FIRE PROT:		
SUBMITTED BY: DATE	POE/EIC:		
TITLE	ARCH:		
FUNCTIONAL APPROVAL DATE	V-E:		
APPROVED DATE	STRUCT:		
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	MECH:		

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OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

NEW LIGHTING PLAN

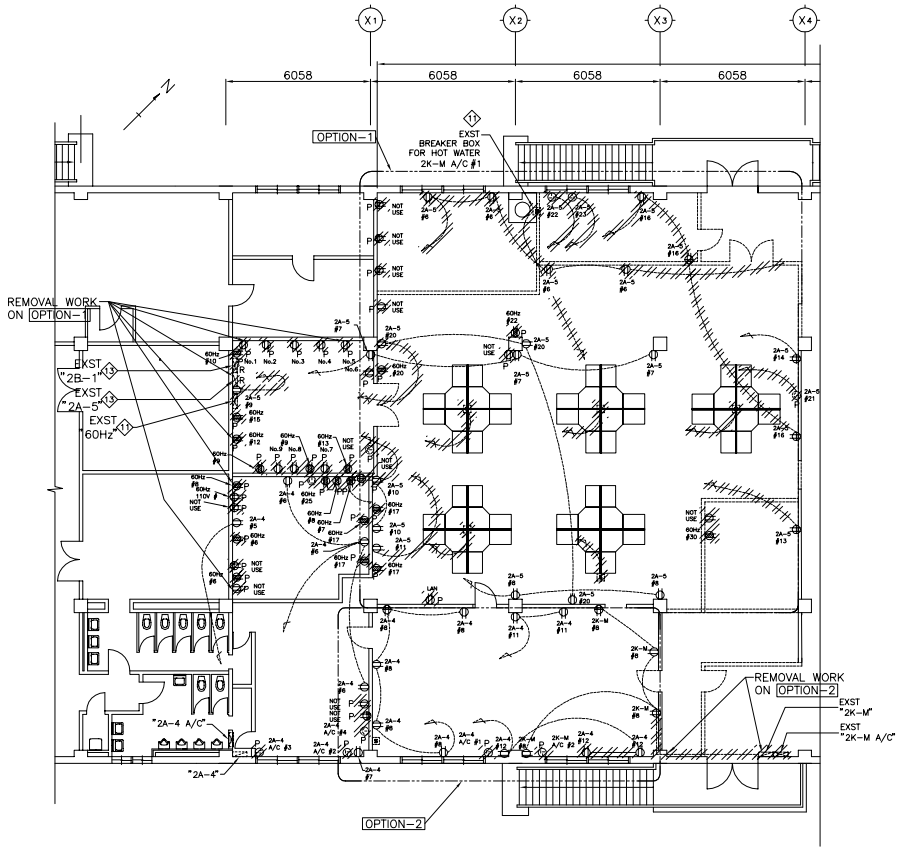
CODE ID NO. 80091	
DRAWING SIZE: D	
CONSTR CONTR NO. N62836-03-C-0115	
SPEC 42 -03-0115	
NAVFAC DRAWING NO. 7838303	
SHEET 26 OF 42	
PWC DWG NO.	DIV NO. E4

WO # BDKPT

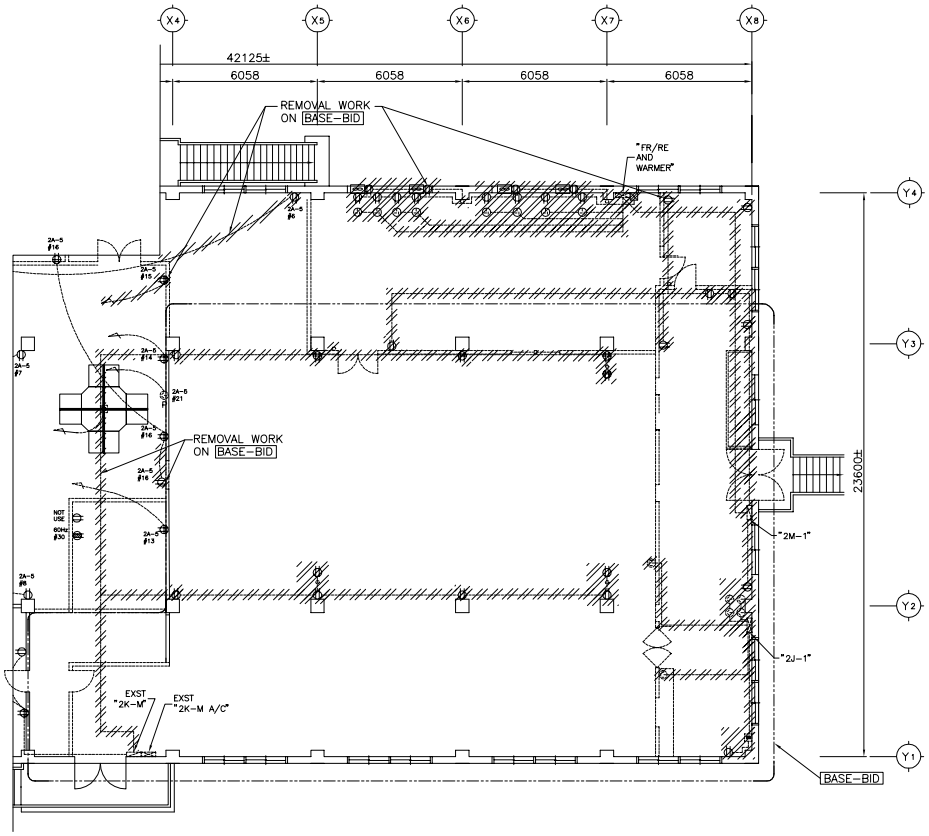
LEGEND:	EXST	EXST TO BE REMOVED
RECEPTACLE OUTLET: DUPLEX, EXPOSED 50Hz 125V-15A 2P GROUND TYPE	⊕	⊕
RECEPTACLE OUTLET: DUPLEX, CONCEALED 50Hz 125V-15A 2P GROUND TYPE	⊕	⊕
RECEPTACLE OUTLET: EXPOSED WITH PLATE		⊕P
RECEPTACLE OUTLET: CONCEALED WITH PLATE		⊕P
RECEPTACLE OUTLET: DUPLEX, EXPOSED 60Hz 125V-15A 2P GROUND TYPE	⊕	⊕
RECEPTACLE OUTLET: 200V 50Hz 2P+G FOR WINDOWFAN & DRYER	⊕	⊕
RECEPTACLE OUTLET: 200V 50Hz 2P+G FOR KITCHEN EQUIPMENT	⊕	⊕
RECEPTACLE OUTLET: 200V 50Hz 3P GROUND TYPE	⊕	⊕

LEGEND:	EXST	EXST TO BE REMOVED
LIGHTING PANELBOARD	▭	"2M-1" "2K-M"
POWER PANELBOARD	▭	"FR/RE AND WARMER" "2J-1" "2K-M A/C"
PULL BOX	⊠	⊠
BREAKER BOX FOR CONCEAL IN WALL TYPE	▣	▣

NOTE :
RECEPTACLE OUTLETS(⊕P, ⊕P)WITH RELATED WIRING SHALL BE REMOVED AND PROVIDED COVER PLATES.



EXST AND REMOVAL RECEPTACLE PLAN AT 2nd FLOOR: OPTION-1 & OPTION-2
SCALE :1/100
⟨12⟩ ⟨13⟩ ⟨17⟩ ⟨19⟩ ◇



EXST AND REMOVAL RECEPTACLE PLAN AT 2nd FLOOR: BASE-BID ⟨1⟩ ⟨2⟩
SCALE :1/100

GRAPHIC SCALE :
1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR:
DSGN/DIR:
FDE/EIC:
ARCH:
STRUCT:
ELEC:
CIVIL:
FIRE PROT:
V-E:
ROICC:
MECH:

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SUBMITTED BY: DATE
TITLE
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APPROVED DATE
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OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

EXST AND REMOVAL RECEPTACLE PLAN

CODE ID NO.	80091
DRAWING SIZE:	D
CONSTR CONTR NO.	N62836-03-C-0115
SPEC	42 -03-0115
NAVFAC DRAWING NO.	7838304
SHEET	27 OF 42
PWC DWG NO.	DIV NO. E5

WO # BDKPT

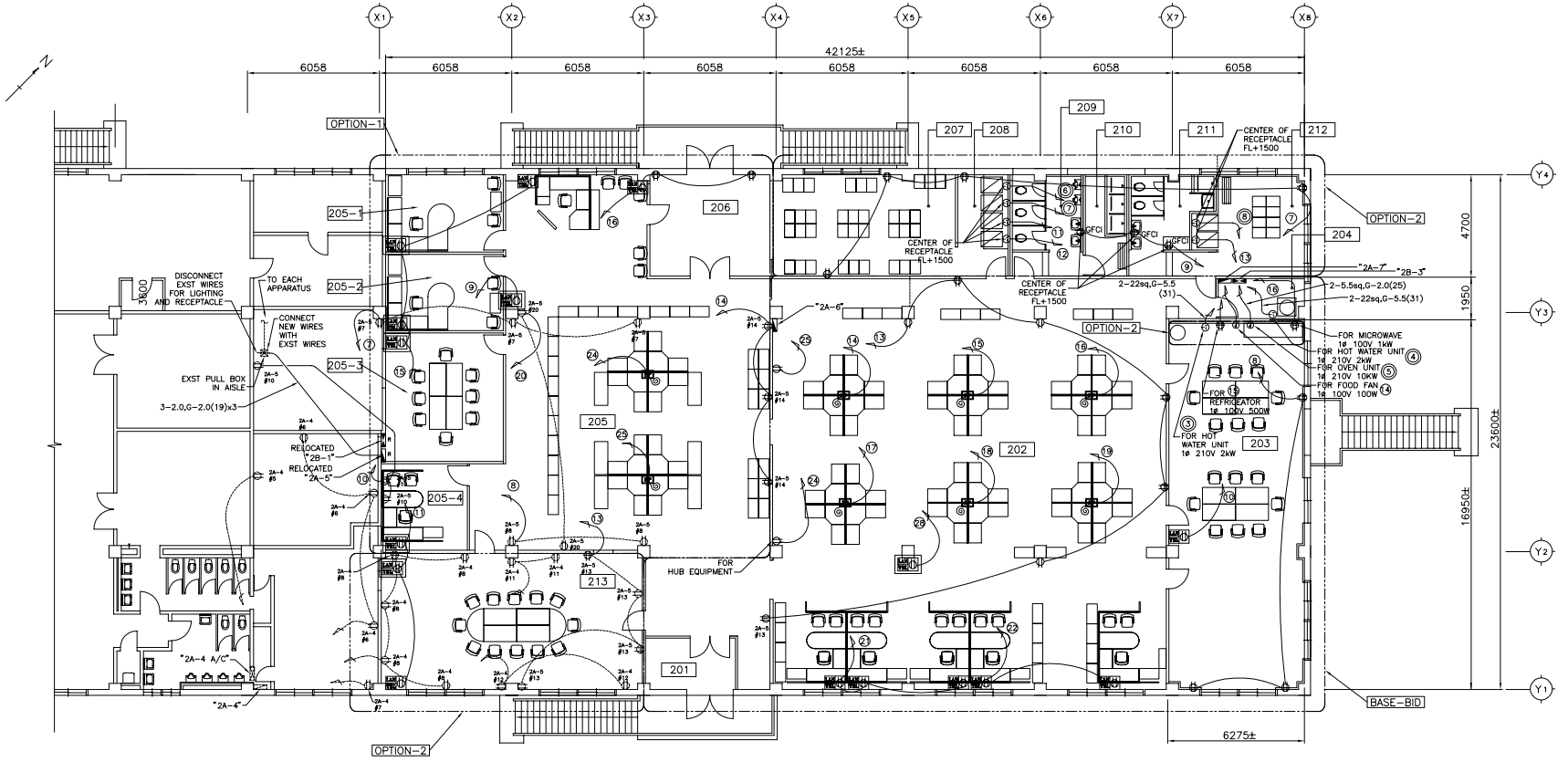
LEGEND:

	EXST	NEW
RECEPTACLE OUTLET: DUPLEX, EXPOSED 50Hz 125V–15A 2P GROUND TYPE	⏚	⏚
RECEPTACLE OUTLET: DUPLEX, CONCEALED 50Hz 125V–15A 2P GROUND TYPE	⏚	⏚
RECEPTACLE OUTLET: GFCI PROTECTION, CONCEALED 50Hz 125V–15A 2P GROUND TYPE		⏚GFCI
RECEPTACLE OUTLET: EXPOSED 50Hz 200V 2P+G FOR WASHER, DRYER		©
COMBINATION OUTLET: CONCEALED, SEE E18 50Hz 125V–15A 2P+G, TEL, LAN OUTLET		LAN TEL
COMBINATION OUTLET: EXPOSED, SEE E18 50Hz 125V–15A 2P+G, TEL, LAN OUTLET		LAN TEL
POWER POLE: BY OTHER POWER OUTLET, TEL, LAN		PP
WIRE COILING: 7m LENGTH AND MARK PANEL CIRCUIT NO.		
CIRCUIT NUMBER "X" IS CIRCUIT NUMBER		(X)

LEGEND:

	EXST	NEW
LIGHTING PANELBOARD		
POWER PANELBOARD		
JUNCTION BOX	⑦	④
PULL BOX	⊠	⊠
CONDUIT WIRING , CONCEALED	----------	————

WIRE SIZE AND CONDUIT SIZE:
- ———— 2–2.0, G–2.0 (19)
- ////// 3–2.0, G–2.0 (25)



NEW RECEPTACLE PLAN 2nd FLOOR: BASE–BID , OPTION–1 & OPTION–2
SCALE :1/100

GRAPHIC SCALE :
1/100 — 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

WO # BDKPT

PUBLIC WORKS CENTER, JAPAN DESIGN & CONSTRUCTION DEPARTMENT
SUBMITTED BY: DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DS/NDIR: CIVIL:
FDE/EIC: FIRE PROT:
ARCH: V–E:
STRUCT: ROICC:
MECH:

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

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DEPARTMENT OF THE NAVY
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OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

NEW RECEPTACLE PLAN

CODE ID NO. 80091	
DRAWING SIZE: D	
CONSTR CONTR NO. N62836–03–C–0115	
SPEC 42 –03–0115	
NAVFAC DRAWING NO. 7838305	
SHEET 28 OF 42	
PWC DWG NO.	DIV NO. E6

LEGEND:

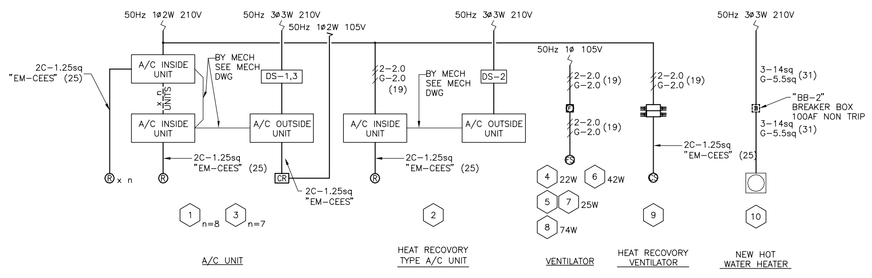
LEGEND:	EXST	NEW
CENTRAL REMOTE CONTROLLER; CONCEALED FOR A/C, SEE MECH DWG		
WIRING CONTROL SWITCH; CONCEALED FOR HEAT RECOVERY TYPE VENTILATOR, SEE MECH DWG		
FAN CONTROL SWITCH; CONCEALED SEE MECH DWG		
WIRING REMOTE CONTROLLER; CONCEALED FOR A/C, SEE MECH DWG		
WIRING CONTROL SWITCH; EXPOSED FOR HEAT RECOVERY TYPE VENTILATOR, SEE MECH DWG		
FAN CONTROL SWITCH; EXPOSED SEE MECH DWG		
WIRING REMOTE CONTROLLER; EXPOSED FOR A/C, SEE MECH DWG		
A/C UNIT, SEE MECH DWG		
HEAT RECOVERY TYPE VENTILATOR SEE MECH DWG		
FAN SEE MECH DWG		

LEGEND:	EXST	NEW
DISCONNECTING SWITCH FOR A/C		DS
LIGHTING PANELBOARD		
POWER PANELBOARD		
BREAKER BOX CONCEALED TYPE		B
PULL BOX		
JUNCTION BOX		
CONDUIT WIRING , CONCEALED		
CONDUIT WIRING , EXPOSED		
FLEXIBLE CONDUIT		
CIRCUIT NUMBER "X" IS CIRCUIT NUMBER		X

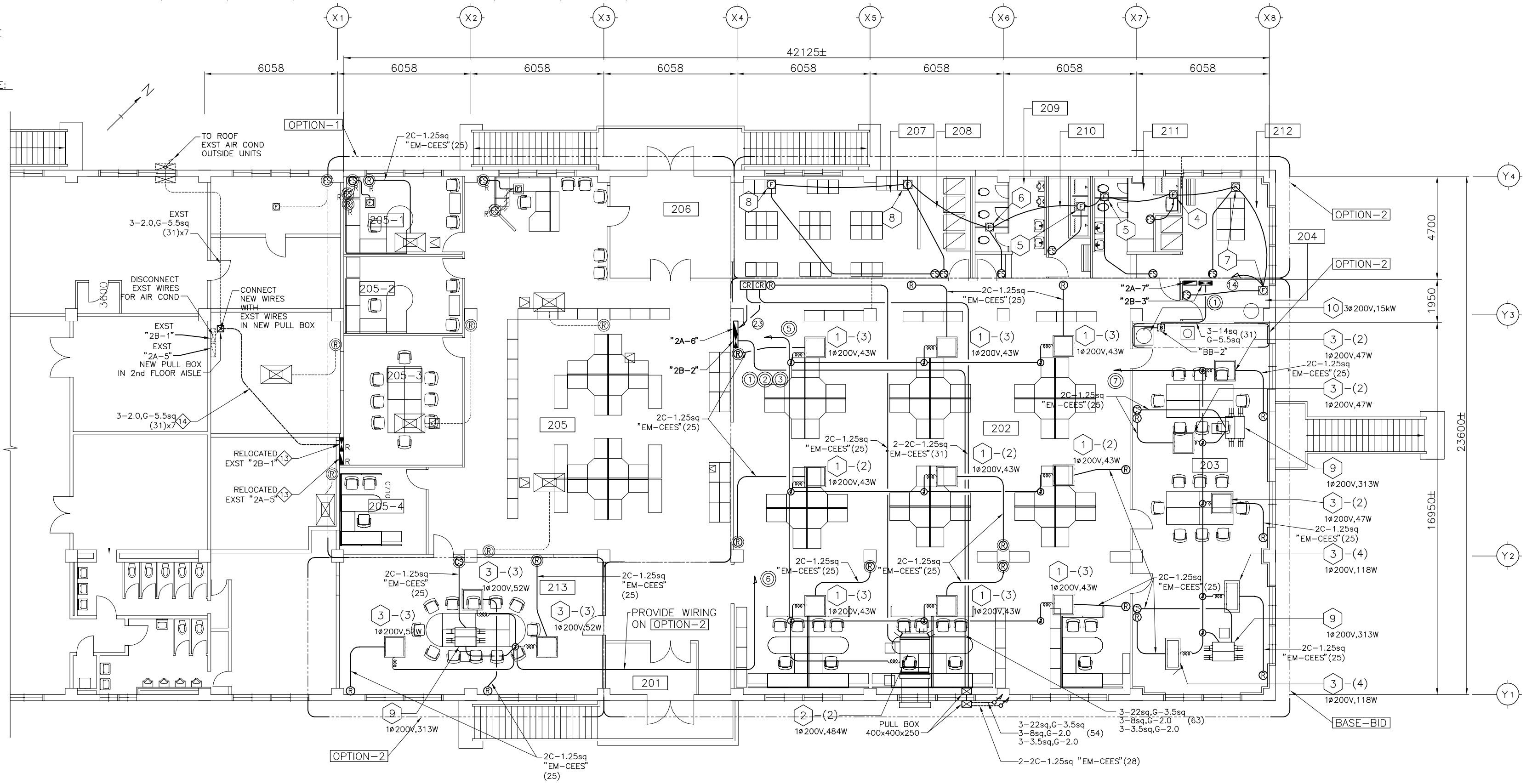
NOTE:
REMOTE CONTROL SWITCHES ARE PREPERED BY MECH.

WIRE SIZE AND CONDUIT SIZE:

2-2.0, G-2.0 (19)



TYPICAL HVAC DIAGRAM
NOT TO SCALE



NEW A/C WIRING PLAN AT 2nd FLOOR: BASE-BID , OPTION-1 & OPTION-2
SCALE :1/100

GRAPHIC SCALE :
1/100 1000 0 1000 5000 10000

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

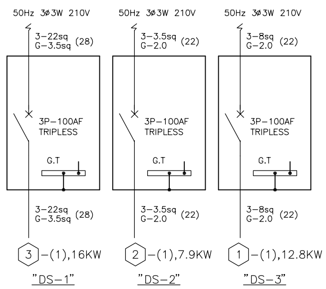
PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
NEW A/C WIRING PLAN

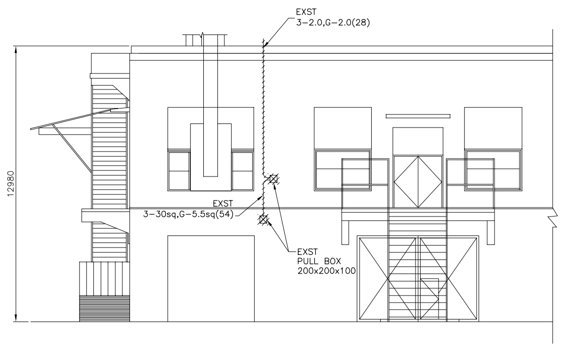
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838306
SHEET 29 OF 42
PWC DWG NO. DIV NO. E7

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE
WO # BDKPT



DS DISCONNECTING SWITCH BOX DIAGRAM

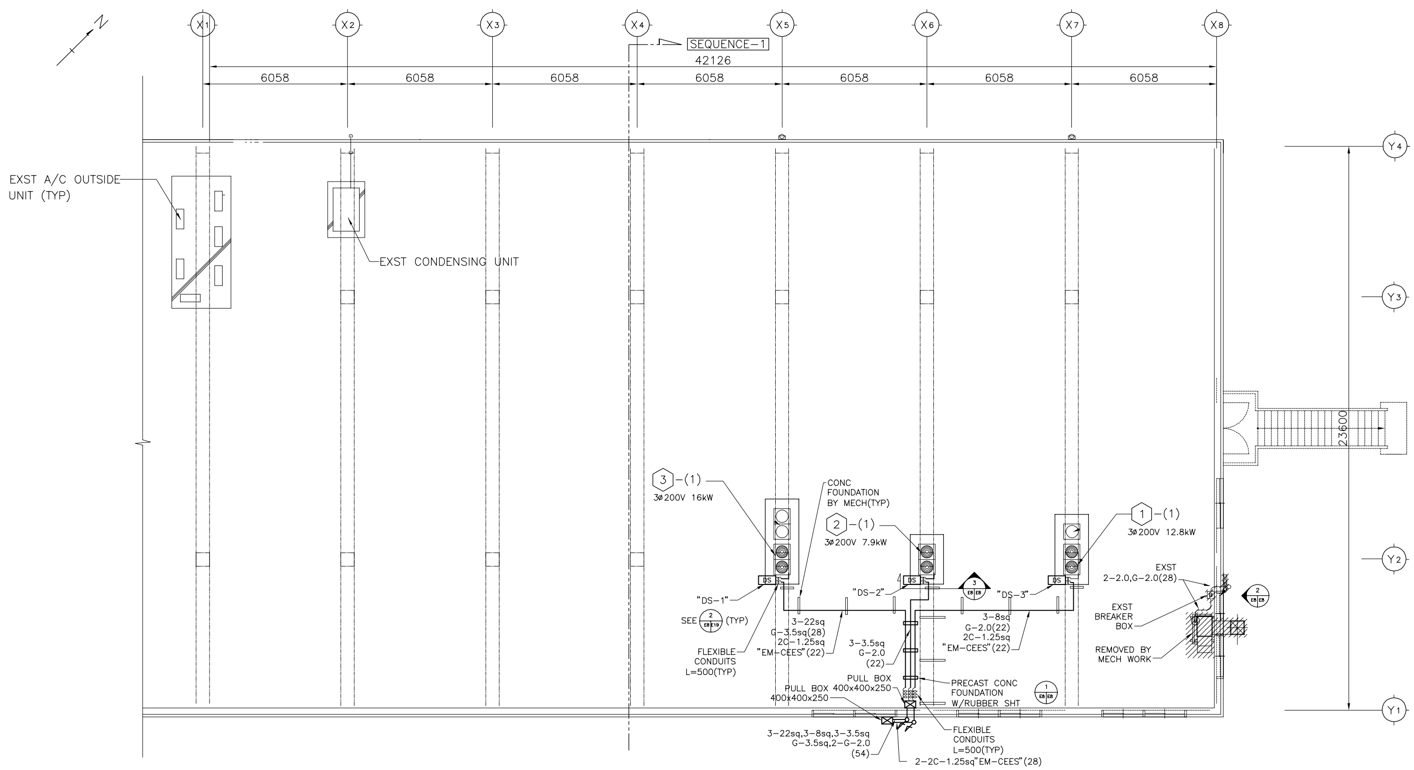
WEATHERPROOF TYPE 4



2 E8 E8 ELEVATION

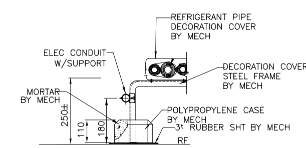
SCALE :1/100

NOTE:
FILL CONCRETE AND PAINT SAME COLOR AS THE WALL AFTER REMOVE MATERIALS



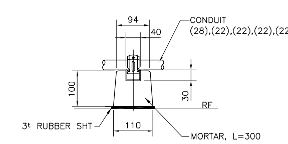
NEW A/C WIRING PLAN AT ROOF: BASE-BID

SCALE :1/100 2 4



3 E8 E8 SECTION (TYP)

NOT TO SCALE



1 E8 E8 CONDUIT SUPPORT (TYP)

NOT TO SCALE

GRAPHIC SCALE :

1/100 1 — 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	DATE	APPROVED
	REVISIONS		

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi DATE
SUBMITTED BY TITLE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
NEW A/C WIRING PLAN

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838307
SHEET 30 OF 42.
PWC DWG NO. DIV NO. E8

WO # BDKPT

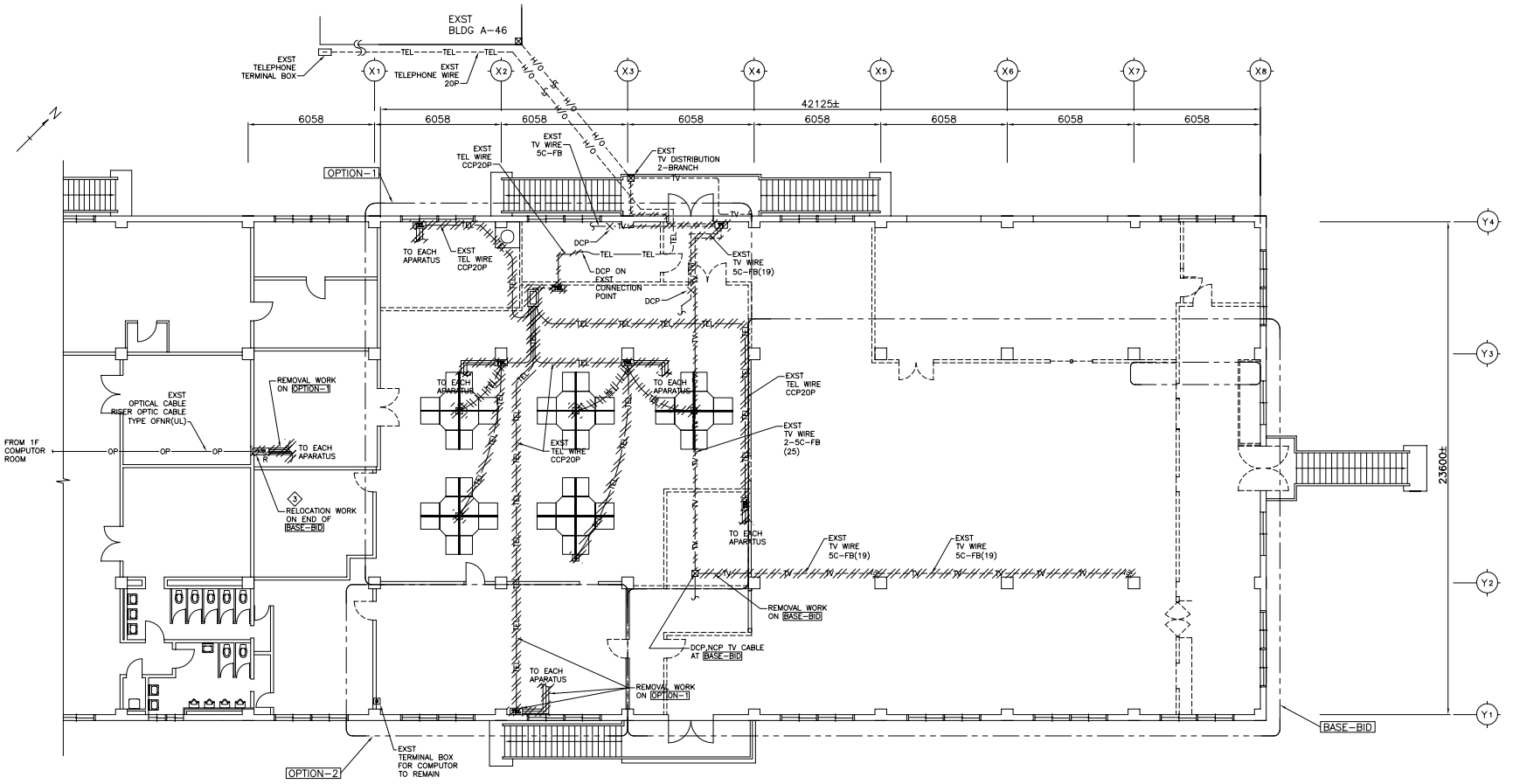
LEGEND:

	EXST	EXST TO BE REMOVED
TELTVISION PANEL 4–BRANCH	W	
TELEVISION OUTLET, EXPOSED WALL MOUNT TYPE DOUBLE		
TELEPHONE TERMINAL PANEL		
BUTTON TELEPHONE EQUIPMENT		
TELEPHONE TERMINAL BOX 50 TERMINALS		

LEGEND:

	EXST	EXST TO BE REMOVED
POWER POLE FOR DESK (X MENTIONED POLE NO.)		
PULL BOX		
CABLE AND WIRES; CONCEALED "X" MENTIONED CATEGORY	— x —	— x —
CABLE AND WIRES; EXPOSED "X" MENTIONED CATEGORY	– – x – –	– – x – –

NOTE:
CATEGORY "O/H" – OVER HEAD
"TEL" – TELEPHONE WIRE
"TV" – TELEVISION WIRE



REMOVAL EXST COMMUNICATION PLAN 2nd FLOOR: BASE-BID & OPTION-1
SCALE :1/100

GRAPHIC SCALE :
1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGN/DIR: CIVIL:
FDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DEPT
SUBMITTED BY: DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

EXST COMMUNICATION PLAN

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838308
SHEET 31 OF 42
PWC DWG NO. DIV NO. E9

WO # BDKPT

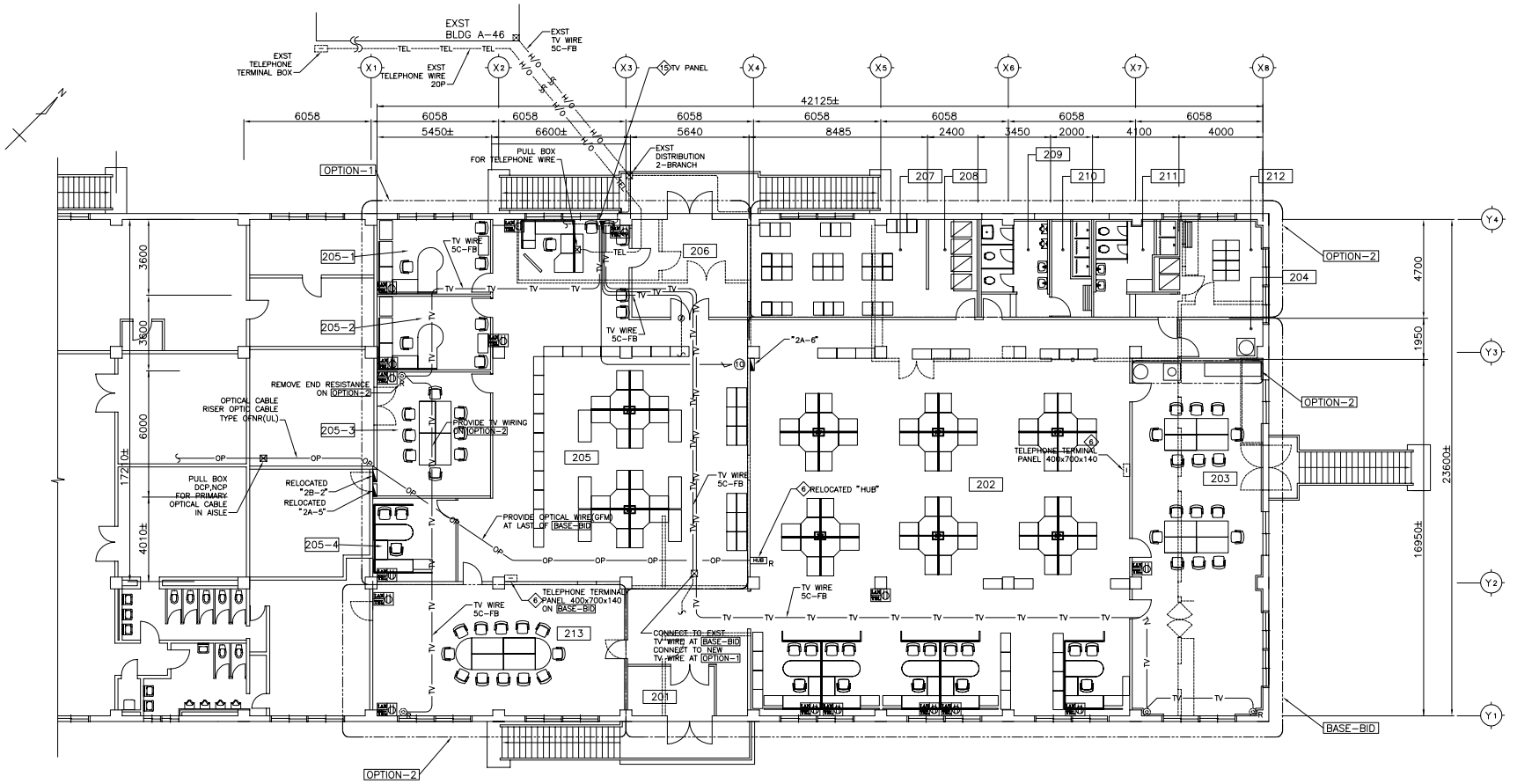
LEGEND:

	EXST	NEW
COMBINATION OUTLET: 100V 50Hz 2P+G, TEL, LAN OUTLET		
POWER POLE: OUT OF SCOPE OUTLET 100V 50Hz 2P+G, TEL, LAN		
TV PANEL CONCEAL TYPE, W/BOOSTER, 6-BRANCH		
TV OUTLET WALL MOUNT TYPE SINGLE		
TV OUTLET WITH END RESISTANCE WALL MOUNT TYPE SINGLE		
TELEPHONE TERMINAL PANEL: WALL MOUNT TYPE		

LEGEND:

	EXST	NEW
TERMINAL BOX FOR COMPUTER CONCEAL IN WALL TYPE		
LAN EQUIPMENT (HUB)		
PANELBOARD		
JUNCTION BOX		
PULL BOX		
CABLE AND WIRES; CONCEALED "X" MENTIONED CATEGORY	— x —	— x —
CABLE AND WIRES; EXPOSED "X" MENTIONED CATEGORY	----- x -----	----- x -----

NOTE:
CATEGORY
"O/H" – OVER HEAD
"TEL" – TELEPHONE WIRE
"TV" – TELEVISION WIRE



NEW COMMUNICATION PLAN 2nd FLOOR: BASE-BID , OPTION-1 & OPTION-2
SCALE :1/100

GRAPHIC SCALE :
1/100 1000 0 1000 5000 10000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS			
LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGN/DIR: CIVIL:
FDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DIVISION
SUBMITTED BY: TITLE: DATE:
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

NEW COMMUNICATION PLAN 2nd FLOOR

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838309
SHEET 32 OF 42
PWC DWG NO. DIV NO. E10

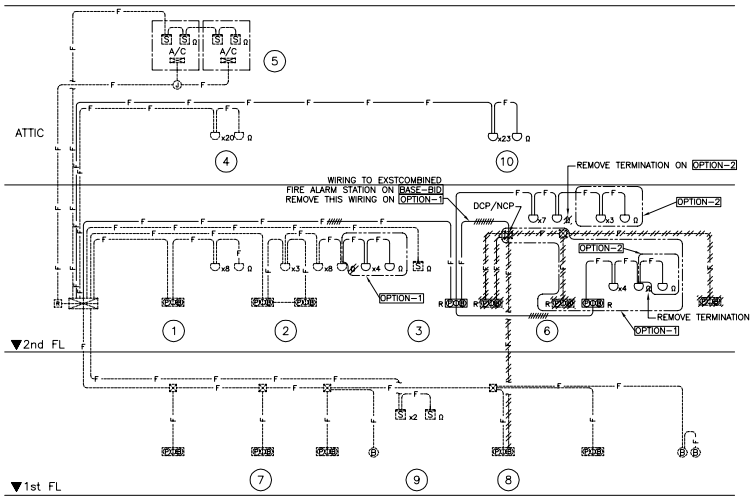
WO # BDKPT

LEGEND:

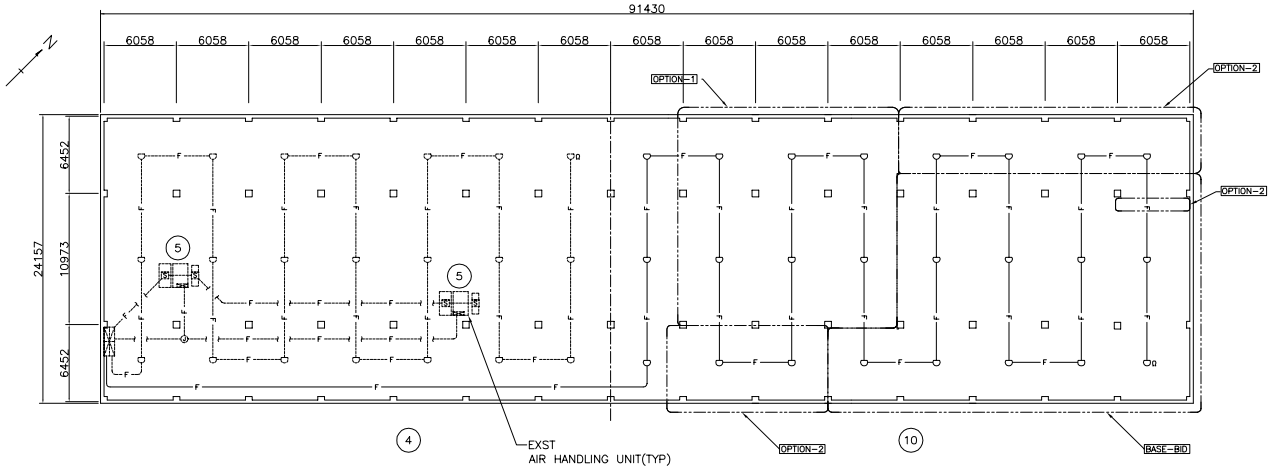
	EXST	EXST TO BE REMOVED	NEW
FIRE ALARM CONTROL PANEL(FACP)	FACP		
COMBINED FIRE ALARM STATION	CFAS	CFAS	
FIRE ALARM BELL	B		
HEAT DETECTOR	D		D
PHOTO ELECTRIC SMOKE DETECTOR	S		
END OF LINE DEVICE	Ω	Ω	Ω
ZONE NUMBER FOR FIRE ALARM	NO		
FIRE ALARM CONDUIT WIRING, CONCEALED	----F----	----F----	----F----
BOUNDARY LINE OF PROTECTED AREA	---·---·---		

NOTE:
1. UNLESS OTHERWISE INDICATED OF WIRES AND CONDUIT SIZE ARE SA FOLLOWS:

----F----	2-1.6(19)	----F----	4-1.6(25)
----F----	6-1.6(25)	----F----	8-1.6(31)



FIRE ALARM CONNECTION DIAGRAM
NOT TO SCALE



FIRE ALARM SYSTEM PLAN AT ATTIC
SCALE : 1/200

GRAPHIC SCALE :
0 5000 10000 20000 30000
1/200
IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DIVISION
SUBMITTED BY: DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR:
DSGNDIR:
PDE/EIC:
ARCH:
STRUCT:
MECH:
ELEC:
CIVIL:
FIRE PROT:
V-E:
ROICC:

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

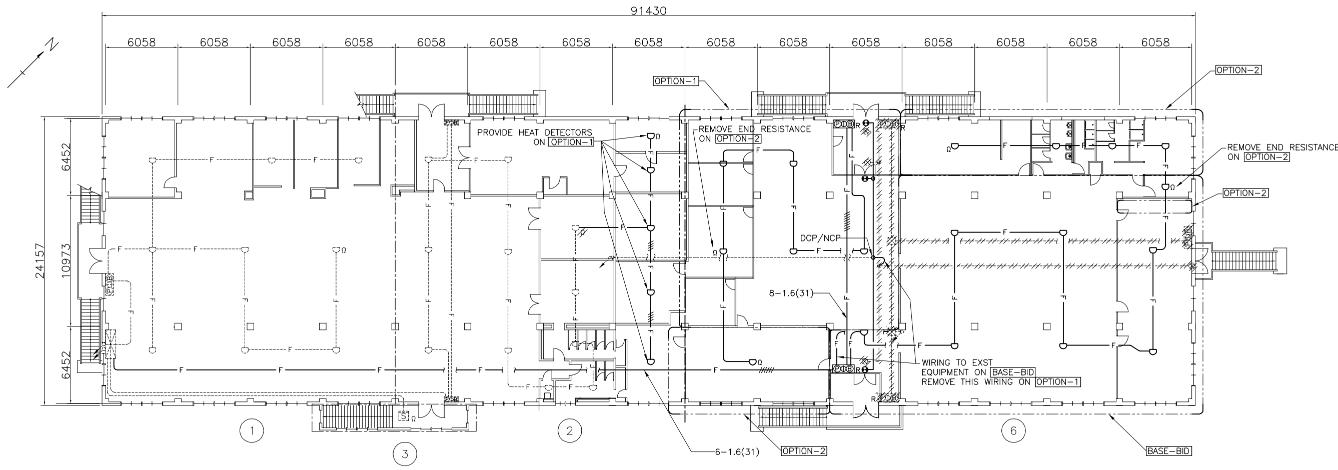
RENOVATE OFFICE AREA BLDG A40

FIRE ALARM SYSTEM PLAN

SEAL AREA

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO.
7838310
SHEET 33 OF 42
PWC DWG NO. DIV NO.
E11

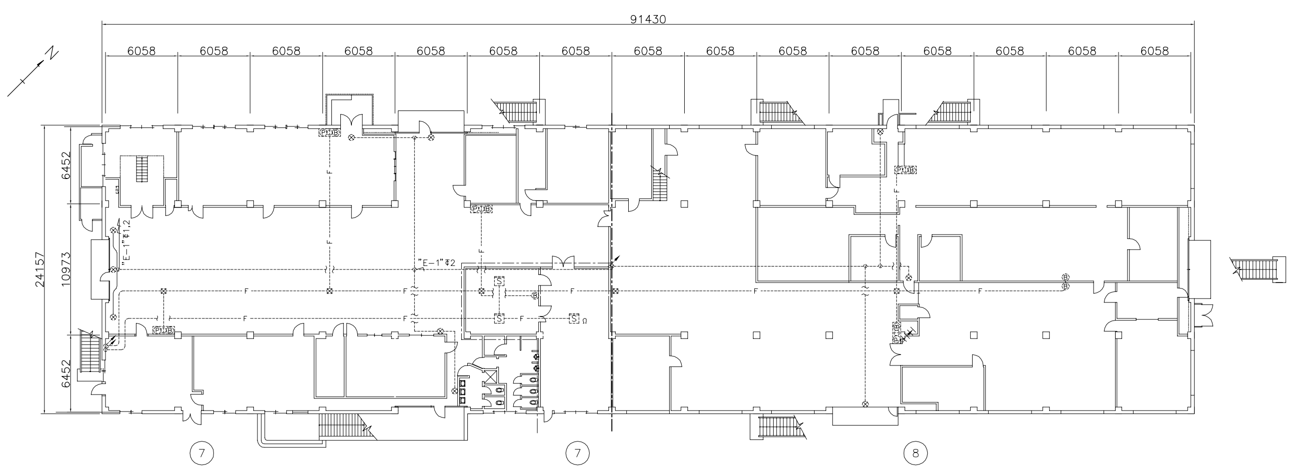
WO # BDKPT



FIRE ALARM SYSTEM/EXIT LIGHT PLAN AT 2nd FLOOR: BASE-BID , OPTION-1 & OPTION-2

SCALE : 1/200

2 3 7
13 16 23



FIRE ALARM SYSTEM/EXIT LIGHT PLAN AT 1st FLOOR

SCALE : 1/200

GRAPHIC SCALE :

1/200 0 5000 10000 20000 30000

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	PREP BY	DATE	APPROVED
	REVISIONS			

PWC/OICC/ROICC REVIEW/SUPV

ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN DESIGN & ENGINEERING DEPT

DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi

SUBMITTED BY TITLE DATE

FUNCTIONAL APPROVAL DATE

APPROVED DATE

EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

OICC FAR EAST YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE AREA BLDG A40

FIRE ALARM SYSTEM/EXIT LIGHT PLAN

CODE ID NO. 80091

DRAWING SIZE: D

CONSTR CONTR NO. N62836-03-C-0115

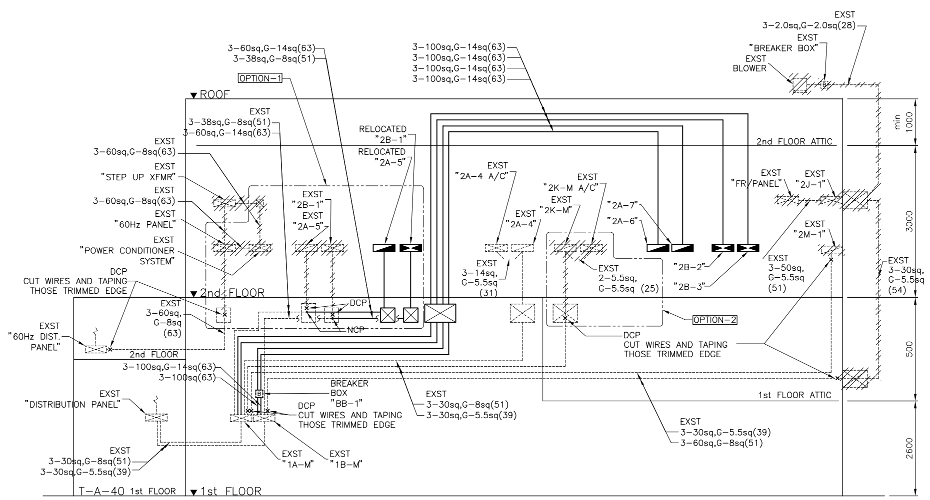
SPEC 42 -03-0115

NAVFAC DRAWING NO. 7838311

SHEET 34 OF 42

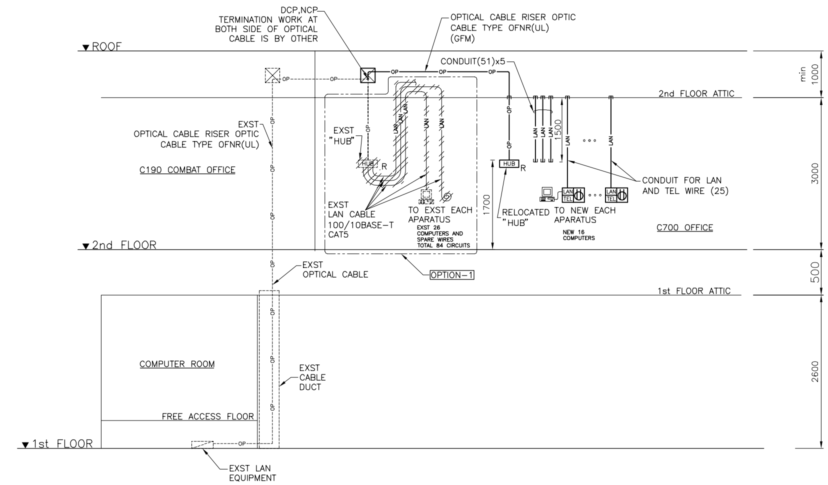
PWC DWG NO. | DIV NO. E12

WO # BDKPT



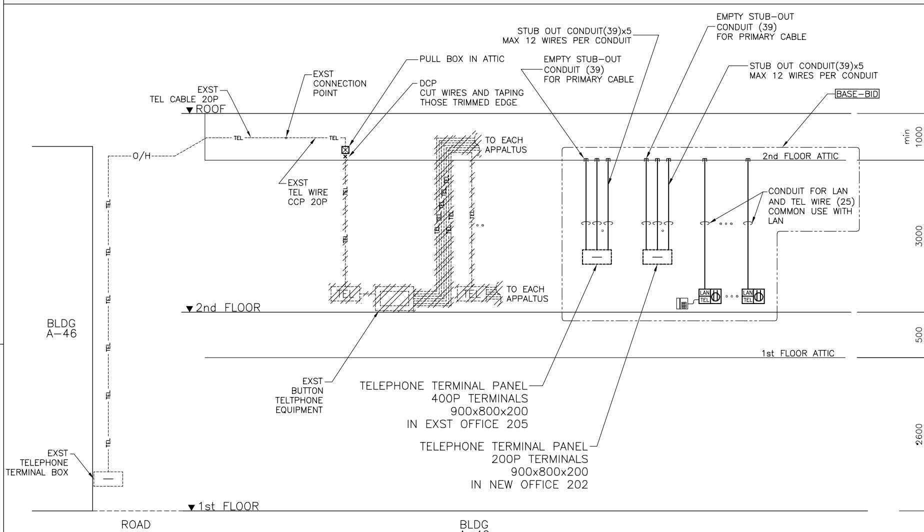
POWER CONNECTION DIAGRAM
NOT TO SCALE

NOTE:
REMOVE AND PROVIDE WORK SHALL BE DONE ON BASE-BID OTHERWISE INDICATED.



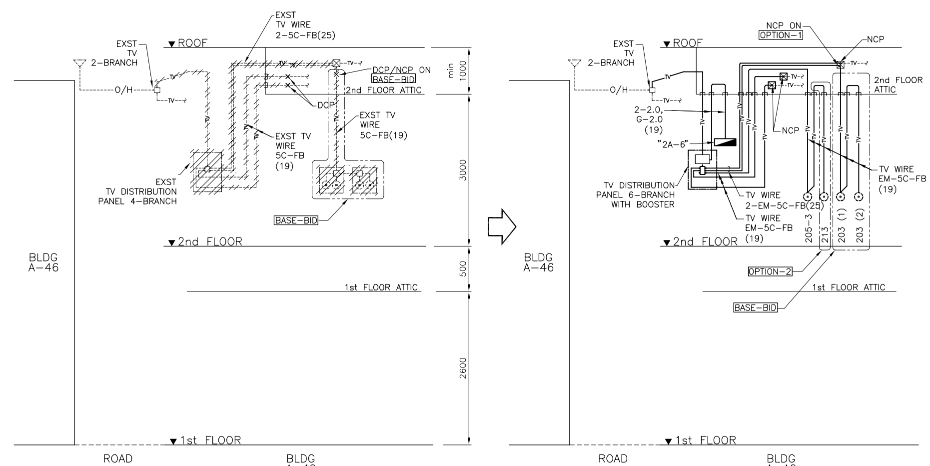
OPTICAL CABLE FOR LAN CONNECTION DIAGRAM
NOT TO SCALE

NOTE:
REMOVE AND PROVIDE WORK SHALL BE DONE ON BASE-BID OTHERWISE INDICATED.



TELEPHONE SYSTEM CONNECTION DIAGRAM
NOT TO SCALE

NOTE:
REMOVE AND PROVIDE WORK SHALL BE DONE ON OPTION-1 OTHERWISE INDICATED.



TV SYSTEM CONNECTION DIAGRAM
NOT TO SCALE

NOTE:
REMOVE AND PROVIDE WORK SHALL BE DONE ON OPTION-1 OTHERWISE INDICATED.

REVISIONS
LTR | DESCRIPTION | PREP BY | DATE | APPROVED

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | ELEC:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi
SUBMITTED BY | TITLE | DATE
FUNCTIONAL APPROVAL | DATE
APPROVED | DATE
EFD FOR COMMANDER, NAVFAC

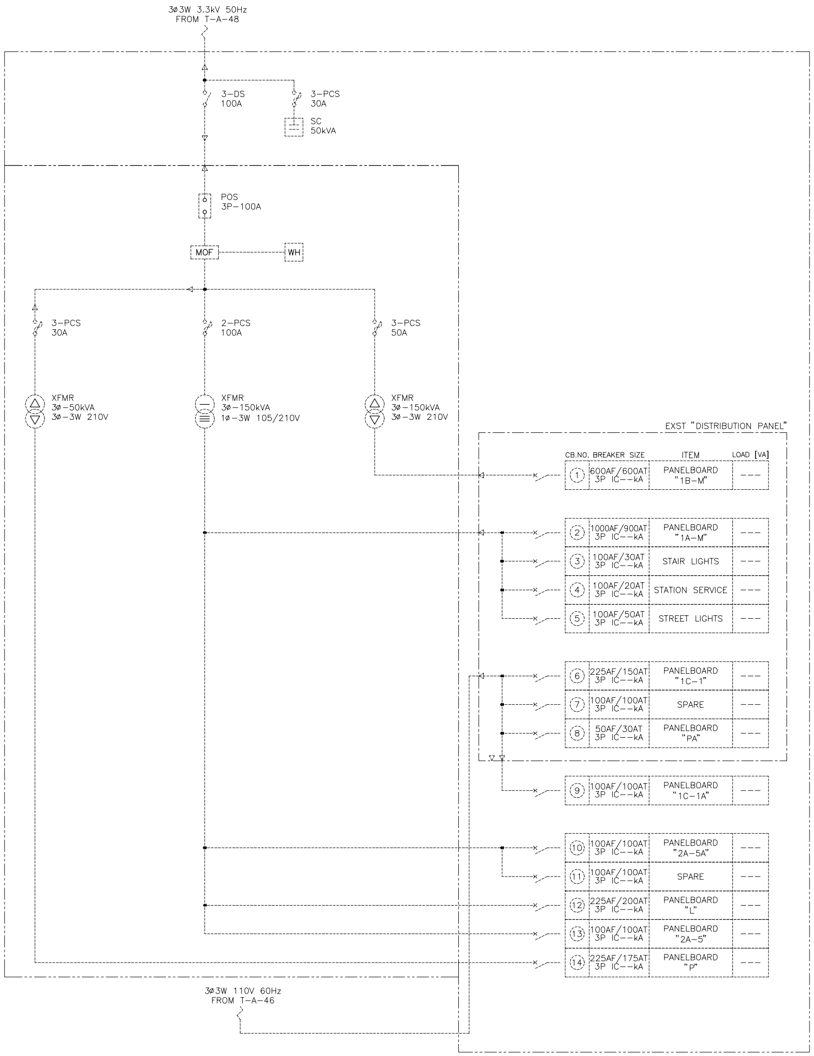
SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
POWER BRANCH, LAN, TV SYSTEM AND TELEPHONE DIAGRAM

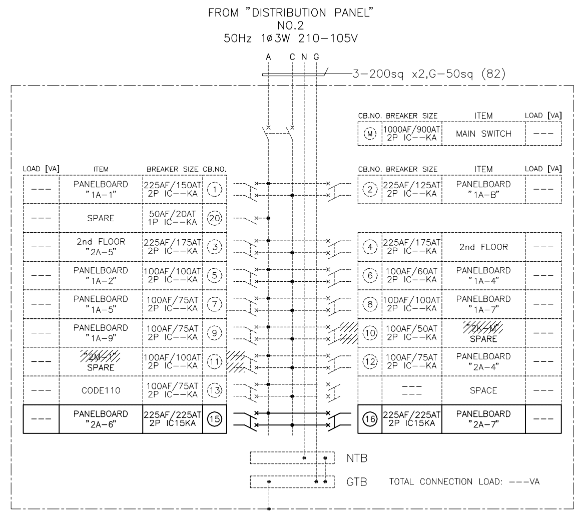
CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836-03-C-0115
SPEC 42-03-0115
NAVFAC DRAWING NO.
7838312
SHEET 35 OF 42
PWC DWG NO. | DIV NO.
E13

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

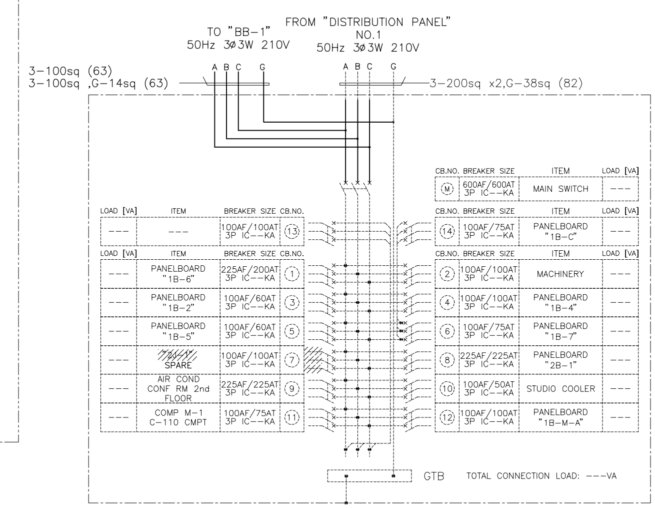
WO # BDKPT



EXST TRANSFORMER STATION T-A-40
NOT TO SCALE



EXST
PANELBOARD "1A-M" (8)
NOT TO SCALE
EXPOSED TYPE



EXST
PANELBOARD "1B-M" (9)
NOT TO SCALE
EXPOSED TYPE

EXST PANELBOARD SCHEDULE(1)
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	DATE	APPROVED
	REVISIONS	PREP BY	

PWC/OICC/ROICC REVIEW/SUPV: ACQ DIR: ELEC: DSGNDIR: CIVIL: PDE/EIC: FIRE PROT: ARCH: V-E: STRUCT: ROICC: MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi
SUBMITTED BY TITLE DATE
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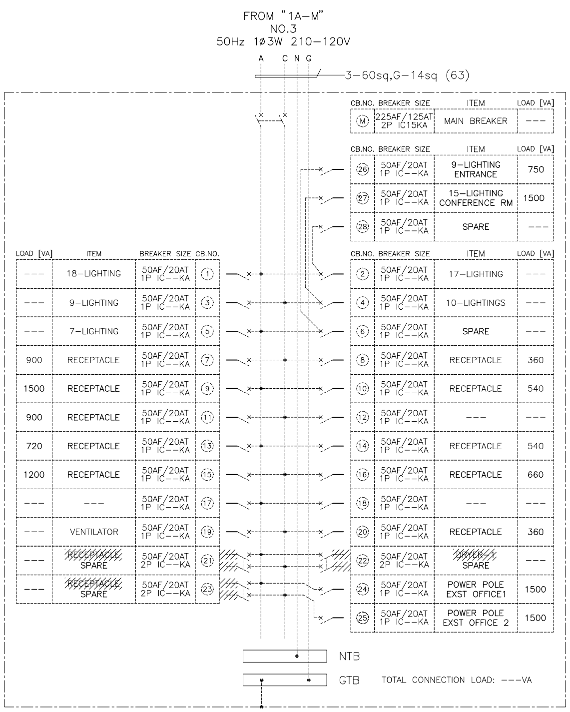
SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
PANELBOARD SCHEDULE(1)

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838313
SHEET 36 OF 42
PWC DWG NO. DIV NO. E14

WO # BDKPT

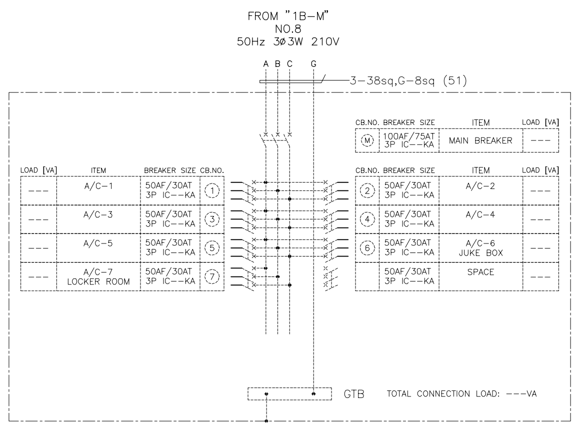


CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
(M)	225AF/125AT 2P IC15KA	MAIN BREAKER	---

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
(26)	50AF/20AT 1P IC--KA	9-LIGHTING ENTRANCE	750
(27)	50AF/20AT 1P IC--KA	15-LIGHTING CONFERENCE RM	1500
(28)	50AF/20AT 1P IC--KA	SPARE	---

LOAD [VA]	ITEM	BREAKER SIZE	CB.NO.	CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
---	18-LIGHTING	50AF/20AT 1P IC--KA	(1)	(2)	50AF/20AT 1P IC--KA	17-LIGHTING	---
---	9-LIGHTING	50AF/20AT 1P IC--KA	(3)	(4)	50AF/20AT 1P IC--KA	10-LIGHTINGS	---
---	7-LIGHTING	50AF/20AT 1P IC--KA	(5)	(6)	50AF/20AT 1P IC--KA	SPARE	---
900	RECEPTACLE	50AF/20AT 1P IC--KA	(7)	(8)	50AF/20AT 1P IC--KA	RECEPTACLE	360
1500	RECEPTACLE	50AF/20AT 1P IC--KA	(9)	(10)	50AF/20AT 1P IC--KA	RECEPTACLE	540
900	RECEPTACLE	50AF/20AT 1P IC--KA	(11)	(12)	50AF/20AT 1P IC--KA	---	---
720	RECEPTACLE	50AF/20AT 1P IC--KA	(13)	(14)	50AF/20AT 1P IC--KA	RECEPTACLE	540
1200	RECEPTACLE	50AF/20AT 1P IC--KA	(15)	(16)	50AF/20AT 1P IC--KA	RECEPTACLE	660
---	---	50AF/20AT 1P IC--KA	(17)	(18)	50AF/20AT 1P IC--KA	---	---
---	VENTILATOR	50AF/20AT 1P IC--KA	(19)	(20)	50AF/20AT 1P IC--KA	RECEPTACLE	360
---	~~RECEPTACLE~~ SPARE	50AF/20AT 2P IC--KA	(21)	(22)	50AF/20AT 2P IC--KA	~~DRYER-1~~ SPARE	---
---	~~RECEPTACLE~~ SPARE	50AF/20AT 2P IC--KA	(23)	(24)	50AF/20AT 1P IC--KA	POWER POLE EXST OFFICE1	1500
				(25)	50AF/20AT 1P IC--KA	POWER POLE EXST OFFICE 2	1500

EXST
PANELBOARD "2A-5"
NOT TO SCALE
EXPOSED TYPR



CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
(M)	100AF/75AT 3P IC--KA	MAIN BREAKER	---

LOAD [VA]	ITEM	BREAKER SIZE	CB.NO.	CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
---	A/C-1	50AF/30AT 3P IC--KA	(1)	(2)	50AF/30AT 3P IC--KA	A/C-2	---
---	A/C-3	50AF/30AT 3P IC--KA	(3)	(4)	50AF/30AT 3P IC--KA	A/C-4	---
---	A/C-5	50AF/30AT 3P IC--KA	(5)	(6)	50AF/30AT 3P IC--KA	A/C-6 JUKE BOX	---
---	A/C-7 LOCKER ROOM	50AF/30AT 3P IC--KA	(7)		50AF/30AT 3P IC--KA	SPACE	---

EXST
PANELBOARD "2B-1"
NOT TO SCALE
EXPOSED TYPE

EXST PANELBOARD SCHEDULE(2)

NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

REVISIONS

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | ELEC:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

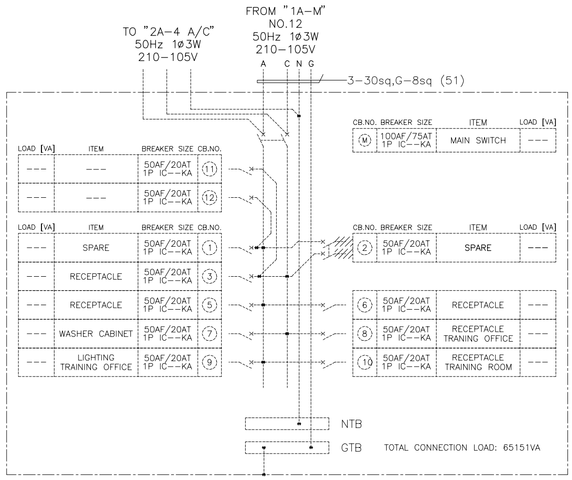
PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu | DATE 3/28/03 | CHK Y.Takeuchi
SUBMITTED BY | TITLE | DATE
FUNCTIONAL APPROVAL | DATE
APPROVED | DATE
EFD FOR COMMANDER. NAVFAC

SEAL AREA

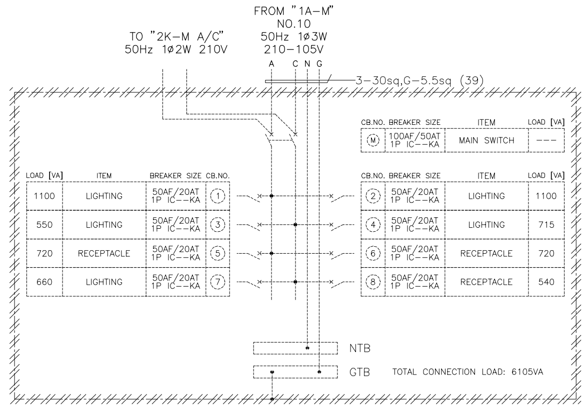
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
PANELBOARD SCHEDULE(2)

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO.
7838314
SHEET 37 OF 42
PWC DWG NO. | DIV NO. E15

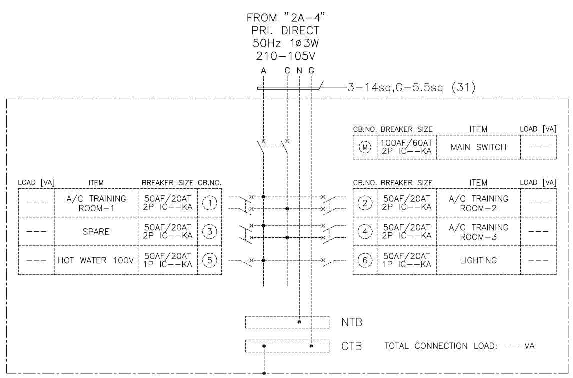
WO # BDKPT



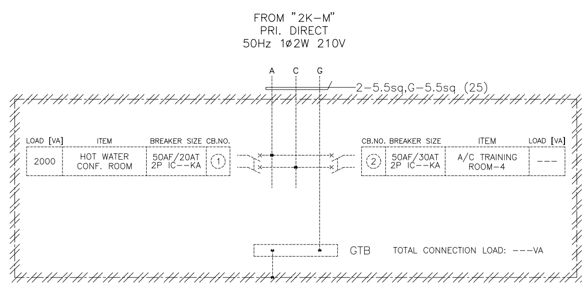
EXST
PANELBOARD "2A-4"
NOT TO SCALE
RECESSED TYPE



EXST
PANELBOARD "2K-M"
NOT TO SCALE
EXPOSED TYPE



EXST
PANELBOARD "2A-4 A/C"
NOT TO SCALE
RECESSED TYPE



EXST
PANELBOARD "2K-M A/C"
NOT TO SCALE
EXPOSED TYPE

EXST PANELBOARD SCHEDULE(3) 1
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	PREP BY	DATE	APPROVED
	REVISIONS			

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
PANELBOARD SCHEDULE(3)

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838315
SHEET 38 OF 42
PWC DWG NO. DIV NO. E16

WO # BDKPT

FROM "1A-M"
CIRCUIT NO.15
50Hz 1ø3W 210/105V

A C N G — 3-100sq,G-14sq (63)

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
M	225AF/150AT 2P IC15KA	MAIN BREAKER	23420

LOAD [VA]	ITEM	BREAKER SIZE	CB.NO.
890	9-LIGHTING 205 OFFICE	50AF/20AT 1P IC5kA	1
890	9-LIGHTING 205 OFFICE	50AF/20AT 1P IC5kA	3
790	8-LIGHTING 205 OFFICE	50AF/20AT 1P IC5kA	5
890	9-LIGHTING 205 OFFICE	50AF/20AT 1P IC5kA	7
500	9-LIGHTING 205 OFFICE	50AF/20AT 1P IC5kA	9
700	6-LIGHTING REAR ENTRANCE	50AF/20AT 1P IC5kA	11
1260	RECEPTACLE	50AF/20AT 1P IC5kA	13
1500	RECEPTACLE	50AF/20AT 1P IC5kA	15
1500	RECEPTACLE	50AF/20AT 1P IC5kA	17
1500	RECEPTACLE	50AF/20AT 1P IC5kA	19
900	RECEPTACLE	50AF/20AT 1P IC5kA	21
180	A/C CENTRAL CONTROL	50AF/20AT 1P IC5kA	23
300	TELEPHONE EQUIP. SOURCE	50AF/20AT 1P IC5kA	25
500	SPARE	50AF/20AT 1P IC5kA	27

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
2	50AF/20AT 1P IC5kA	12-LIGHTING 205 OFFICE	1190
4	50AF/20AT 1P IC5kA	6-LIGHTING 205 OFFICE	600
6	50AF/20AT 1P IC5kA	6-LIGHTING 205 OFFICE	600
8	50AF/20AT 1P IC5kA	12-LIGHTING 205 OFFICE	1190
10	50AF/20AT 1P IC5kA	EMERGENCY LIGHTING	500
12	50AF/20AT 1P IC5kA	SPARE	500
14	50AF/20AT 1P IC5kA	RECEPTACLE	1500
16	50AF/20AT 1P IC5kA	RECEPTACLE	1500
18	50AF/20AT 1P IC5kA	RECEPTACLE	1500
20	50AF/20AT 1P IC5kA	RECEPTACLE	1500
22	50AF/20AT 1P IC5kA	RECEPTACLE	600
24	50AF/20AT 1P IC5kA	HUB QUIP. SOURCE	500
26	50AF/20AT 1P IC5kA	SPARE	500
	50AF/20AT 1P IC5kA	SPACE	

NTB
GTB TOTAL CONNECTION LOAD: 23420VA

PANELBOARD "2A-6"

NOT TO SCALE
RECESSED TYPE WITH KEY

FROM "1A-M"
CIRCUIT NO.16
50Hz 1ø3W 210/105V

A C N G — 3-100sq,G-14sq (63)

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
M	225AF/150AT 2P IC15KA	MAIN BREAKER	13170

LOAD [VA]	ITEM	BREAKER SIZE	CB.NO.
1180	21-LIGHTING 207,208,209,210	50AF/20AT 1P IC5kA	1
1580	16-LIGHTING 206 KITCHEN	50AF/20AT 1P IC5kA	3
500	SPARE	50AF/20AT 1P IC5kA	5
720	RECEPTACLE	50AF/20AT 1P IC5kA	7
540	RECEPTACLE	50AF/20AT 1P IC5kA	9
500	WASHER-1 FOR MEN	50AF/20AT 1P IC5kA	11
500	WASHER-3 FOR WOMEN	50AF/20AT 1P IC5kA	13
500	REFRIGATOR KITCHEN	50AF/20AT 1P IC5kA	15
500	SPARE	50AF/20AT 1P IC5kA	17
	SPACE		

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
2	50AF/20AT 1P IC5kA	12-LIGHTING 211,212,213	710
4	50AF/20AT 1P IC5kA	7-LIGHTING 206 CONFERENCE	700
6	50AF/20AT 1P IC5kA	SPARE	500
8	50AF/20AT 1P IC5kA	RECEPTACLE	540
10	50AF/20AT 1P IC5kA	RECEPTACLE	1500
12	50AF/20AT 1P IC5kA	WASHER-2 FOR MEN	500
14	50AF/20AT 1P IC5kA	100V FAN	520
16	50AF/20AT 1P IC5kA	MICROWAVE KITCHEN	1000
18	50AF/20AT 1P IC5kA	SPARE	500
		SPACE	

NTB
GTB TOTAL CONNECTION LOAD: 13170VA

PANELBOARD "2A-7"

NOT TO SCALE
EXPOSED TYPE WITH KEY

FROM "BB-1"
CIRCUIT NO.1
50Hz 3ø3W 210V

A B C G — 3-100sq,G-14sq (63)

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
M	225AF/175AT 2P IC15KA	MAIN BREAKER	37000

LOAD [VA]	ITEM	BREAKER SIZE	CB.NO.
15000	HOT WATER HEATER-1(BB-2)	100AF/75AT 3P IC5kA	1
2000	HOT WATER HEATER-2	50AF/20AT 2P IC5kA	3
6000	OVEN UNIT	50AF/40AT 2P IC5kA	5
3000	DRYER-2 FOR MEN	50AF/20AT 2P IC5kA	7
1000	SPARE	50AF/20AT 2P IC5kA	9
	SPACE	50AF/20AT 2P ICkA	

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
2	50AF/20AT 3P IC5kA	SPARE	1000
4	50AF/20AT 2P IC5kA	HOT WATER HEATER-3	2000
6	50AF/20AT 2P IC5kA	DRYER-1 FOR MEN	3000
8	50AF/20AT 2P IC5kA	DRYER-3 FOR WOMEN	3000
10	50AF/20AT 2P IC5kA	SPARE	1000
	50AF/20AT 2P IC5kA	SPACE	

GTB TOTAL CONNECTION LOAD: 37000VA

PANELBOARD "2B-3"

NOT TO SCALE
EXPOSED TYPE WITH KEY

FROM "BB-1"
CIRCUIT NO.2
50Hz 3ø3W 210V

A B C G — 3-100sq,G-14sq (63)

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
M	225AF/175AT 3P IC15KA	MAIN BREAKER	44140

LOAD [VA]	ITEM	BREAKER SIZE	CB.NO.
8640	A/C-2 DS-2	50AF/30AT 3P IC10kA	1
17290	A/C-1 DS-1	100AF/75AT 3P IC10kA	3
390	A/C,VENT INDOOR UNIT	50AF/20AT 2P IC5kA	5
890	A/C,VENT INDOOR UNIT	50AF/20AT 2P IC5kA	7
	SPACE	50AF/20AT 2P IC5kA	

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
2	50AF/50AT 3P IC10kA	A/C-3 DS-3	13970
4	50AF/20AT 3P IC10kA	SPARE	1000
6	50AF/20AT 2P IC5kA	A/C,VENT INDOOR UNIT	960
8	50AF/20AT 2P IC5kA	SPARE	1000
	50AF/20AT 2P IC5kA	SPACE	

GTB TOTAL CONNECTION LOAD: 44140VA

PANELBOARD "2B-2"

NOT TO SCALE
RECESSED TYPE WITH KEY

FROM "1B-M"
PRI. DIRECT
50Hz 3ø3W 210V

3-100sq (63)
3-100sq ,G-14sq (63) — A B C G

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
1	225AF/225AT 3P IC15kA	PANELBOARD "2B-3"	37000

CB.NO.	BREAKER SIZE	ITEM	LOAD [VA]
2	225AF/225AT 3P IC15kA	PANELBOARD "2B-2"	44140

GTB TOTAL CONNECTION LOAD: 81140VA

BREAKER BOX "BB-1"

NOT TO SCALE
EXPOSED TYPE WITH KEY

PANELBOARD SCHEDULE(4) (4)

NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

REVISIONS

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: ELEC:
DSGNDIR: CIVIL:
PDE/EIC: FIRE PROT:
ARCH: V-E:
STRUCT: ROICC:
MECH:

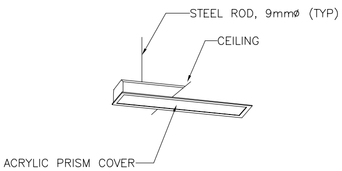
PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER. NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
PANELBOARD SCHEDULE(4)

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838316
SHEET 39 OF 42
PWC DWG NO. DIV NO. E17

WO # BDKPT

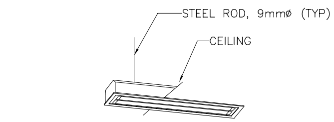


50Hz,1ø 100V, 2-40W RECESSED

BALLAST : 50Hz 1ø 100V HIGH POWER FACTOR, RAPID START, ENERGY-SAVING TYPE WITH THERMAL PROTECTIVE DEVICE OF AUTOMATIC RESETTING TYPE

LAMP : ENERGY-SAVING TYPE (36W)

FLUORESCENT LIGHT FIXTURE
NOT TO SCALE

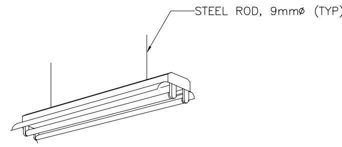


50Hz,1ø 100V, 2-40W RECESSED

BALLAST : 50Hz 1ø 100V HIGH POWER FACTOR, RAPID START, DIMMER CONTROL TYPE, ENERGY-SAVING TYPE WITH THERMAL PROTECTIVE DEVICE OF AUTOMATIC RESETTING TYPE

LAMP : ENERGY-SAVING TYPE (40W) FOR DIMMER BALLAST

FLUORESCENT LIGHT FIXTURE
NOT TO SCALE



50Hz,1ø 100V, 2-40W EXPOSED

BALLAST : 50Hz 1ø 100V HIGH POWER FACTOR, RAPID START, ENERGY-SAVING TYPE WITH THERMAL PROTECTIVE DEVICE OF AUTOMATIC RESETTING TYPE

LAMP : ENERGY-SAVING TYPE (36W)

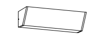
R FLUORESCENT LIGHT FIXTURE
NOT TO SCALE

50Hz,1ø 100V, 1-40W CEILING MOUNTED

BALLAST : 50Hz 1ø 100V HIGH POWER FACTOR, RAPID START, ENERGY-SAVING TYPE WITH THERMAL PROTECTIVE DEVICE OF AUTOMATIC RESETTING TYPE

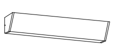
LAMP : ENERGY-SAVING TYPE (36W)

FLUORESCENT LIGHT FIXTURE
NOT TO SCALE



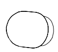
50Hz 1ø 100V, 1-20W EXPOSED
HIGH POWER FACTOR
ENERGY-SAVING TYPE
ACRYLIC COVER
WALL MOUNTED TYPE

AC FLUORESCENT LIGHT FIXTURE
NOT TO SCALE



50Hz 1ø 100V, 1-40W EXPOSED
HIGH POWER FACTOR
ENERGY-SAVING TYPE
ACRYLIC COVER
WALL MOUNTED TYPE

AC FLUORESCENT LIGHT FIXTURE
NOT TO SCALE

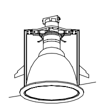


50Hz,1ø 100V, 60W WALL MOUNTED W/WATERPROOF

: GLASS GROVE (MILKY WHITE)
ALUMINUM FUNISH

LAMP : 60W (E26)

D INCANDESCENT LIGHT FIXTURE
NOT TO SCALE

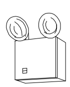


50Hz,1ø 100V, 60,40W RECESSED

: IVORY FREAME
(SILVER MIRROR FINISH)

LAMP : 60,40W (E26)

40 INCANDESCENT LIGHT FIXTURE
NOT TO SCALE



50Hz 1ø100V EMERGENCY BATTERY
BATTERY PACK UNIT WITH TWO(2)
6 VOLTS FLOOD LIGHTS 2-25W
FOR 90 MINUTES, AND NICKEL CADMIUM
BATTERIES WITH AUTOMATIC CHARGING
(MAINTENANCE FREE TYPE)

INITIAL ILLUMINATION NOT LESS THAN AN
AVERAGE OF 1 FOOT-CANDLE (10 lx)
AND A MINIMUM AT ANY POINT OF
0.1 FOOT-CANDERA (1 lx) MEASURED
ALONG THE PATH OF EGRESS AT FLOOR LEVEL

EMERGENCY LIGHT FIXTURE
NOT TO SCALE

50Hz,1ø 100V, WALL MOUNTED TYPE W/BATTERY

LAMP: FLUORESCENT LIGHT 1-20W
BATTERY: NICKEL CADMIUM BATTERY
BATTERY SHALL HAVE CAPACITY ADEQUATE FOR 1.5-HOUR CONTINUOUS USE.

THE LAMP WILL BE NORMALLY OPERATED BY AC. SUPPLY AND INSTANTLY SWITCHED TO THE BATTERY WHEN AC. POWER FAILED.
THE LAMP HOUSING SHALL BE SHEET STEEL OR ALUMINUM.
THE LETTER SHALL BE RED COLOR ON THE WHITE BACK.

EXIT LIGHT FIXTURE
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	PREP BY	DATE	APPROVED
	REVISIONS			

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | ELEC:
DSGNDIR: | CIVIL:
PDE/EIC: | FIRE PROT:
ARCH: | V-E:
STRUCT: | ROICC:
MECH:

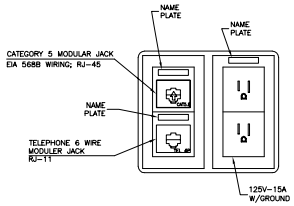
PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN S.Shimizu DATE 3/28/03 CHK Y.Takeuchi
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

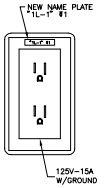
SEAL AREA

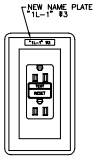
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN
U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
LIGHTING FIXTURE AND DETAIL

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838317
SHEET 40 OF 42
PWC DWG NO. | DIV NO. E18

WO # BDKPT





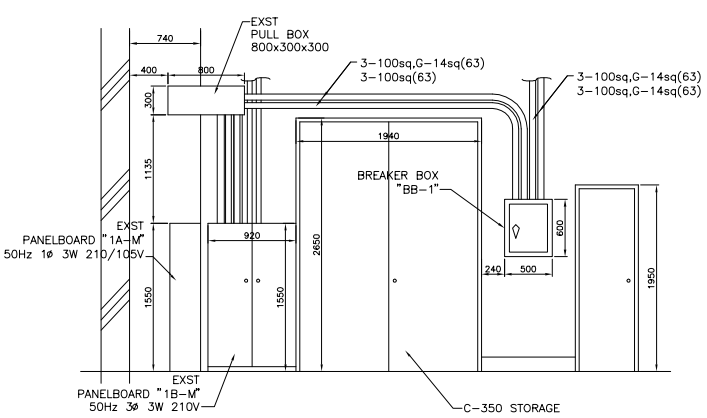


RATED VOLTAGE: 1ø 120V
MAXIMUM CIRCUIT AMPACITY: 20 Amps
TRIP THRESHOLD: 5±1mA
TRIP TIME: 0.025 Sec

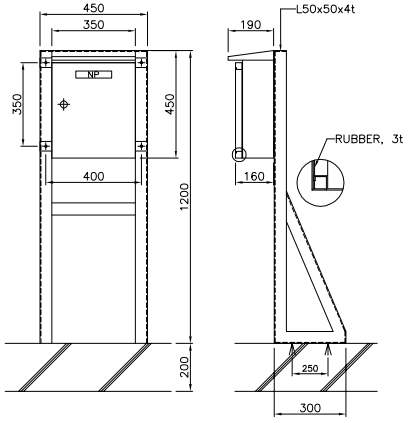
COMBINATION OUTLET (TYP)
NOT TO SCALE

RECEPTACLE OUTLET (TYP)
NOT TO SCALE

GROUND FAULT CIRCUIT INTERRUPTION(GFCI) RECEPTACLE OUTLET
NOT TO SCALE



1 / E1 E19 ELEVATION
NOT TO SCALE



2 / E1 E19 RACK FOR DISCONNECTING SWITCH (TYP)
NOT TO SCALE

IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

PUBLIC WORKS CENTER, JAPAN
DESIGN & CONSTRUCTION DEPT
SUBMITTED BY: DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR:
DSGNDIR:
FDE/EIC:
ARCH:
STRUCT:
MECH:
ELEC:
CIVIL:
FIRE PROT:
V-E:
ROICC:

REVISIONS

LTR	DESCRIPTION	PREP BY	DATE	APPROVED

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACTORY, YOKOSUKA, JAPAN
RENOVATE OFFICE AREA BLDG A40
DISCONNECTING SWITCH, RECEPTACLE AND DETAILS

SEAL AREA

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO. N62836-03-C-0115
SPEC 42 -03-0115
NAVFAC DRAWING NO. 7838318
SHEET 41 OF 42
PWC DWG NO.
DIV NO. E19

WO # BDKPT

GENERAL DESCRIPTION OF WORK:

(CIVIL WORK)

OPTION–2

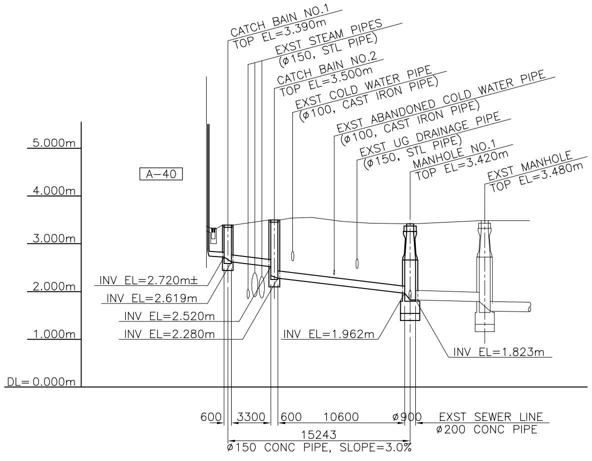
(1) PROVIDE NEW SEWER LINE AS SHOWN.

NOTE:

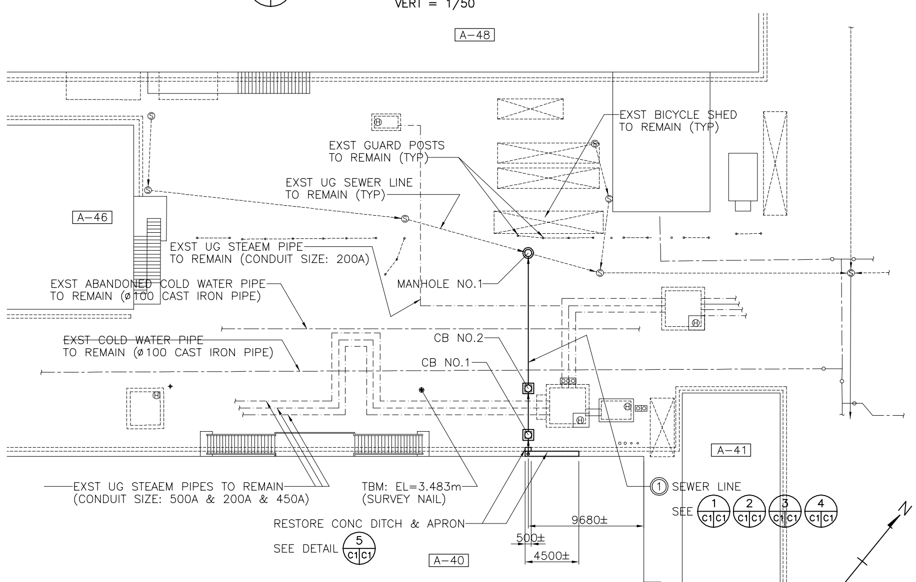
1. THE CONTRACTOR SHALL RESTORE PARKING LINES AND LETTER MARKING WHICH ARE REMOVED BY THE EXCAVATION IN THIS PROJECT.

ABBREVIATIONS:

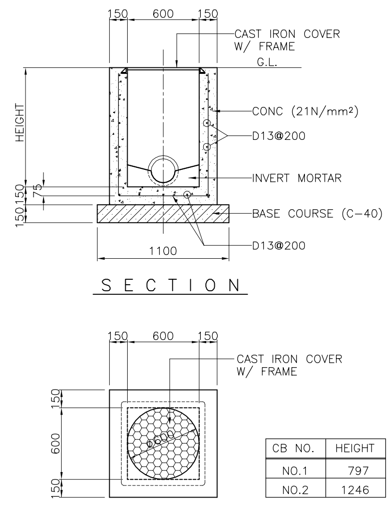
AC	ASPHALT CONCRETE	EXST	EXISTING	THK	THICKNESS
BLDG	BUILDING	GL	GROUND LEVEL	TYP	TYPICAL
CB	CATCH BASIN	H	HEIGHT	UG	UNDERGROUND
CONC	CONCRETE	HORI	HORIZONTAL	VERT	VERTICAL
ø	DIAMETER	INV	INVERT	WWM	WELDED WIRE MESH
DWG	DRAWING	PAVE	PAVEMENT	W/	WITH
EL	ELEVATION	TBM	TEMPORARY BENCH MARK		



1 C1 C1 PROFILES OF SEWER LINE
SCALE: HORI = 1/200
VERT = 1/50

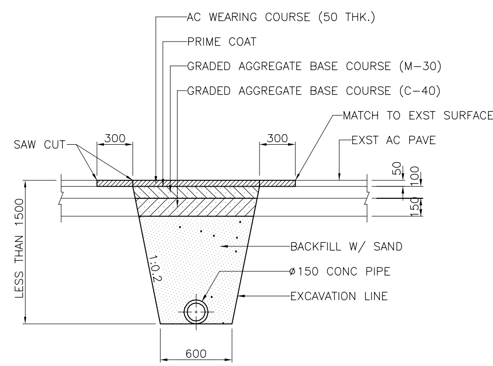


PLAN
SCALE: 1/200

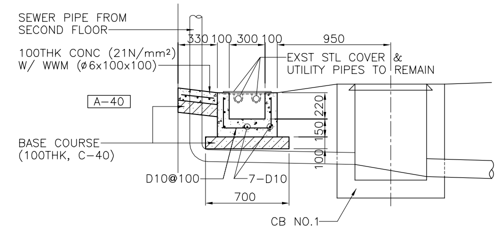


CB NO.	HEIGHT
NO.1	797
NO.2	1246

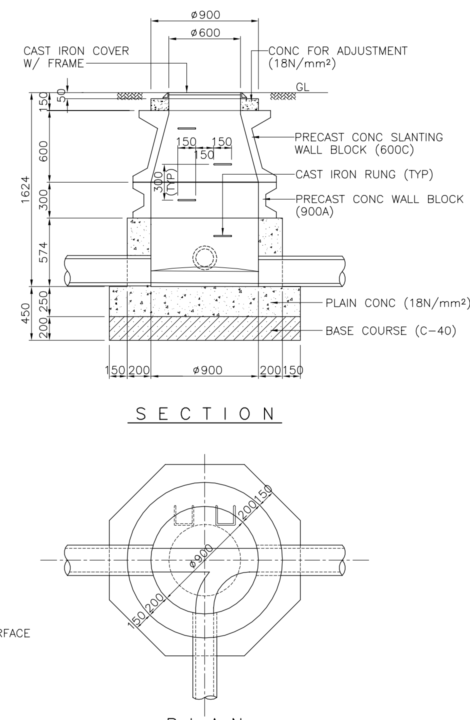
3 C1 C1 DETAILS OF CATCH BASINS
SCALE: 1/20



2 C1 C1 TYP SECTION
SCALE: 1/20

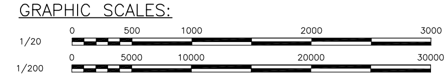


5 C1 C1 DETAILS OF CONC DITCH & APRON
SCALE: 1/20



4 C1 C1 DETAILS OF MANHOLE
SCALE: 1/20

GRAPHIC SCALES:



IF OUTSIDE BORDER IS LESS THAN 34"x22" USE GRAPHIC SCALE

LTR	DESCRIPTION	DATE	PREP BY	APPROVED	REVISIONS

PWC/OICC/ROICC REVIEW/SUPV
ACQ DIR: | DSGNDIR: | PDE/EIC: | ARCH: | STRUCT: | MECH: | ELEC: | CIVIL: | FIRE PROT: | V–E: | ROICC:

PUBLIC WORKS CENTER, JAPAN
DESIGN & ENGINEERING DEPT
DSGN T.TANAKA DATE 3/28/03 CHK A.A
SUBMITTED BY TITLE DATE
FUNCTIONAL APPROVAL DATE
APPROVED DATE
EFD FOR COMMANDER, NAVFAC

SEAL AREA

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
OICC FAR EAST
YOKOSUKA, JAPAN

U.S. NAVAL SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

RENOVATE OFFICE BLDG A40

PLAN, PROFILE AND DETAILS OF SEWER LINE

CODE ID NO. 80091
DRAWING SIZE: D
CONSTR CONTR NO.
N62836–03–C–0115
SPEC 42 –03–0115
NAVFAC DRAWING NO.
7838319
SHEET 42 OF 42
PWC DWG NO. | DIV NO.
C1

WO # BDKPT